

# Water-Quality Assessment of the Eastern Iowa Basins: Hydrologic and Biologic Data, October 1996 through September 1998

Open-File Report 00-67



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**NATIONAL WATER QUALITY ASSESSMENT  
EASTERN IOWA BASINS**



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**Open-File Report 00-67**

**NATIONAL WATER QUALITY ASSESSMENT  
EASTERN IOWA BASINS**

**Iowa City, Iowa  
2000**

## **U.S. Department of the Interior**

Bruce Babbitt, Secretary

## **U.S. Geological Survey**

Charles G. Groat, Director

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# FOREWORD

The mission of the U.S. Geological Survey (USGS) is to assess the quantity and quality of the earth resources of the Nation and to provide information that will assist resource managers and policymakers at Federal, State, and local levels in making sound decisions. Assessment of water-quality conditions and trends is an important part of this overall mission.

One of the greatest challenges faced by water-resources scientists is acquiring reliable information that will guide the use and protection of the Nation's water resources. That challenge is being addressed by Federal, State, interstate, and local water-resource agencies and by many academic institutions. These organizations are collecting water-quality data for a host of purposes that include compliance with permits and water-supply standards; development of remediation plans for specific contamination problems; operational decisions on industrial, wastewater, or water-supply facilities; and research on factors that affect water quality. An additional need for water-quality information is to provide a basis on which regional and national-level policy decisions can be made. Wise decisions must be based on sound information. As a society we need to know whether certain types of water-quality problems are isolated or ubiquitous, whether there are significant differences in conditions among regions, whether the conditions are changing over time, and why these conditions change from place to place and over time. The information can be used to help determine the efficacy of existing water-quality policies and to help analysts determine the need for and likely consequences of new policies.

To address these needs, the U.S. Congress appropriated funds in 1986 for the USGS to begin a pilot program in seven project areas to develop and refine the National Water-Quality Assessment (NAWQA) Program. In 1991, the USGS began full implementation of the program. The NAWQA Program builds upon an existing base of water-quality studies of the USGS, as well as those of other Federal, State, and local agencies. The objectives of the NAWQA Program are:

- Describe current water-quality conditions for a large part of the Nation's freshwater streams, rivers, and aquifers.
- Describe how water quality is changing over time.

- Improve understanding of the primary natural and human factors that affect water-quality conditions.

This information will help support the development and evaluation of management, regulatory, and monitoring decisions by other Federal, State, and local agencies to protect, use, and enhance water resources.

The goals of the NAWQA Program are being achieved through ongoing and proposed investigations of 59 of the Nation's most important river basins and aquifer systems, which are referred to as study units. These study units are distributed throughout the Nation and cover a diversity of hydrogeologic settings. More than two-thirds of the Nation's freshwater use occurs within the 59 study units and more than two-thirds of the people served by public water-supply systems live within their boundaries.

National synthesis of data analysis, based on aggregation of comparable information obtained from the study areas, is a major component of the program. This effort focuses on selected water-quality topics using nationally consistent information. Comparative studies will explain differences and similarities in observed water-quality conditions among study units and will identify changes and trends and their causes. The first topics addressed by the national synthesis are pesticides, nutrients, volatile organic compounds, and aquatic biology. Discussions on these and other water-quality topics will be published in periodic summaries of the quality of the Nation's ground and surface water as the information becomes available.

This report is an element of the comprehensive body of information developed as part of the NAWQA Program. The program depends heavily on the advice, cooperation, and information from many Federal, State, interstate, tribal, and local agencies and the public. The assistance and suggestions of all are greatly appreciated.

Robert M. Hirsch  
Chief Hydrologist



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## CONVERSION FACTORS AND ABBREVIATIONS

Multiply	By	To obtain
<b>Length</b>		
inch (in.)	25.4	millimeter
inch (in.)	2.54	centimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
<b>Area</b>		
acre	4,047	square meter
square mile (mi <sup>2</sup> )	2.590	square kilometer
<b>Volume</b>		
gallon (gal)	3.785	liter
gallon (gal)	3,785	milliliter

Temperature, in degrees Celsius ( $\times^{\circ}\text{C}$ ) can be converted to degrees Fahrenheit ( $^{\circ}\text{F}$ ) by use of the following equation:  $^{\circ}\text{F} = 1.8(^{\circ}\text{C}) + 32$ .

**Abbreviated water-quality units:** Chemical concentrations and temperature for water samples are given in metric units. Chemical concentration is given in milligrams per liter (mg/L) or microgram per liter ( $\mu\text{g/L}$ ). Milligrams per liter is a unit expressing the concentration of chemical constituents in solution as weight (milligrams) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. Chemical concentrations for fish-tissue samples also are given in metric units. Chemical concentrations are given in micrograms per gram ( $\mu\text{g/g}$ ) or micrograms per kilogram ( $\mu\text{g/kg}$ ). Micrograms per gram is a unit expressing the concentration of chemical constituent as weight (micrograms) of solute per unit mass (grams). One microgram per 1,000 grams is equivalent to 1 microgram per kilogram.

### Other abbreviations used in this report:

DOC	Dissolved organic carbon
EIWA	Eastern Iowa Basins study unit
MDL	Method detection limit
MRL	Method reporting limit
NAWQA	National Water-Quality Assessment Program
NWQL	U.S. Geological Survey National Water-Quality Laboratory
PCB	Polychlorinated biphenyl
PVC	Polyvinyl chloride
SOC	Suspended organic carbon
UHL	University of Iowa Hygienic Laboratory
USGS	U.S. Geological Survey
VOC	Volatile organic compounds
cm	centimeter
col/100 mL	colonies per 100 milliliters
g	gram
L	liter
$\mu\text{m}$	micrometer
$\mu\text{S/cm}$	microsiemens per centimeter at 25 $^{\circ}\text{C}$
mL	milliliter
mm	millimeter
pCi/L	picocuries per liter





# Water-Quality Assessment of the Eastern Iowa Basins: Hydrologic and Biologic Data, October 1996 Through September 1998

By Kimberlee K.B. Akers, Denise L. Montgomery, Daniel E. Christiansen, Mark E. Savoca, Douglas J. Schnoebelen, Kent D. Becher, and Eric M. Sadorf

## Abstract

Hydrologic and biologic data collected from October 1996 through September 1998 in the Eastern Iowa Basins study unit of the U.S. Geological Survey National Water-Quality Assessment Program are presented in this report. Monthly data collected from 12 sites on rivers and streams included measurements of physical properties and determinations of the concentrations of nutrients, major ions, organic carbon, trace elements, suspended sediment, and dissolved pesticides. Fish-tissue samples were collected at two sites in September 1997 and analyzed for organochlorine pesticides. In addition, water-quality assessments were made at 25 sites as part of a synoptic study in August 1997 and May 1998.

A ground-water study was conducted to evaluate the effects of agricultural and urban land use on the water quality of shallow alluvial aquifers in the study unit. Samples were collected and analyzed from wells in 31 agricultural and 30 urban land-use areas during June–August 1997. Samples were collected and analyzed from 32 domestic wells during June–July 1998 to provide a broad assessment of the water quality of shallow alluvial aquifers throughout the study unit. Samples were collected during August 1998 from 27 shallow monitoring wells completed in the Iowa River alluvial aquifer to evaluate the effects of changing land use on shallow ground-water quality. Ground-water samples were analyzed for physical properties, nutrients, major ions, organic

carbon, trace elements, dissolved pesticides, volatile organic compounds, radon-222, and tritium.

## INTRODUCTION

In 1991, the U.S. Geological Survey (USGS), U.S. Department of the Interior, began the National Water-Quality Assessment (NAWQA) Program. The long-term goals of this program are to describe the status of and trends in the quality of a large, representative part of the Nation's surface- and ground-water resources and to identify the major factors that affect the quality of the resources (Gilliom and others, 1995). In addressing these goals, the program provides water-quality information that can be useful to policymakers and managers at the national, State, and local levels. Studies of 59 hydrologic systems ranging in size from 1,200 to 62,000 mi<sup>2</sup> include parts of most major river basins and aquifer systems (study-unit investigations) and represent from 60 to 70 percent of the Nation's water use and population served by public water supplies.

## Purpose and Scope

This report presents the results of data-collection activities from October 1996 through September 1998 in the Eastern Iowa Basins (EIWA) NAWQA study unit, which was selected as an important hydrologic system representative of an agricultural area in the Midwest. Included are the results of analyses of monthly water samples from 12 surface-water sites, analyses of samples from 25 synoptic surface-water

sites, analyses of ground-water samples from 120 wells, and the analysis of fish-tissue samples from two sites. Surface- and ground-water samples were analyzed for physical properties, nutrients, major ions, organic carbon, trace elements, and pesticides. In addition, surface-water sample analyses included suspended-sediment concentration, and ground-water sample analyses included volatile organic compounds (VOCs), radon-222, and tritium. Fish-tissue samples were analyzed for organochlorine pesticides.

This report is the second of two reports that document data collected as part of the high-intensity phase of the EIWA NAWQA study. Data collected from September 1995 through September 1996 are reported by Akers and others (1999).

## Description of Eastern Iowa Basins

The EIWA study unit covers about 19,500 mi<sup>2</sup> in eastern Iowa and southern Minnesota and includes the Wapsipinicon, Cedar, Iowa, and Skunk River Basins (fig. 1). These four major rivers generally flow in a southeasterly direction toward eventual discharge into the Mississippi River. The Wapsipinicon River originates in southeastern Minnesota, has a drainage area of 2,540 mi<sup>2</sup>, and is about 225 mi long. The Cedar River also originates in southern Minnesota and joins the Iowa River about 30 mi upstream from the confluence of the Iowa and Mississippi Rivers. Together, the Cedar River Basin and the Iowa River Basin encompass about 12,640 mi<sup>2</sup>, more than 90 percent of which is in Iowa. The Skunk River Basin originates in central Iowa and drains about 4,350 mi<sup>2</sup>.

There are three major landform regions and one subregion within the EIWA study unit—the Des Moines Lobe, the Southern Iowa Drift Plain, the Iowan Surface, and the Iowan Karst, which is a subdivision of the Iowan Surface (Prior, 1991). The Des Moines Lobe is characterized by low relief with some distinct ridges near the eastern boundary and occasional depressions that form lakes, ponds, and marshes. Glacial till is the dominant surficial material with alluvium along the streams. In the Southern Iowa Drift Plain, streams have eroded deeply into the glacial drift and loess mantle to produce a steeply rolling terrain with broad, flat drainage divides. The Iowan Surface has gently rolling topography with long slopes, low relief, and a dendritic (tree-like) drainage pattern. The surficial material is primarily glacial drift with thin layers of loess on the ridges and alluvium near the

streams. In the Iowan Karst, glacial deposits are thin, and sinkholes are evidence of the soluble limestone beneath the land surface.

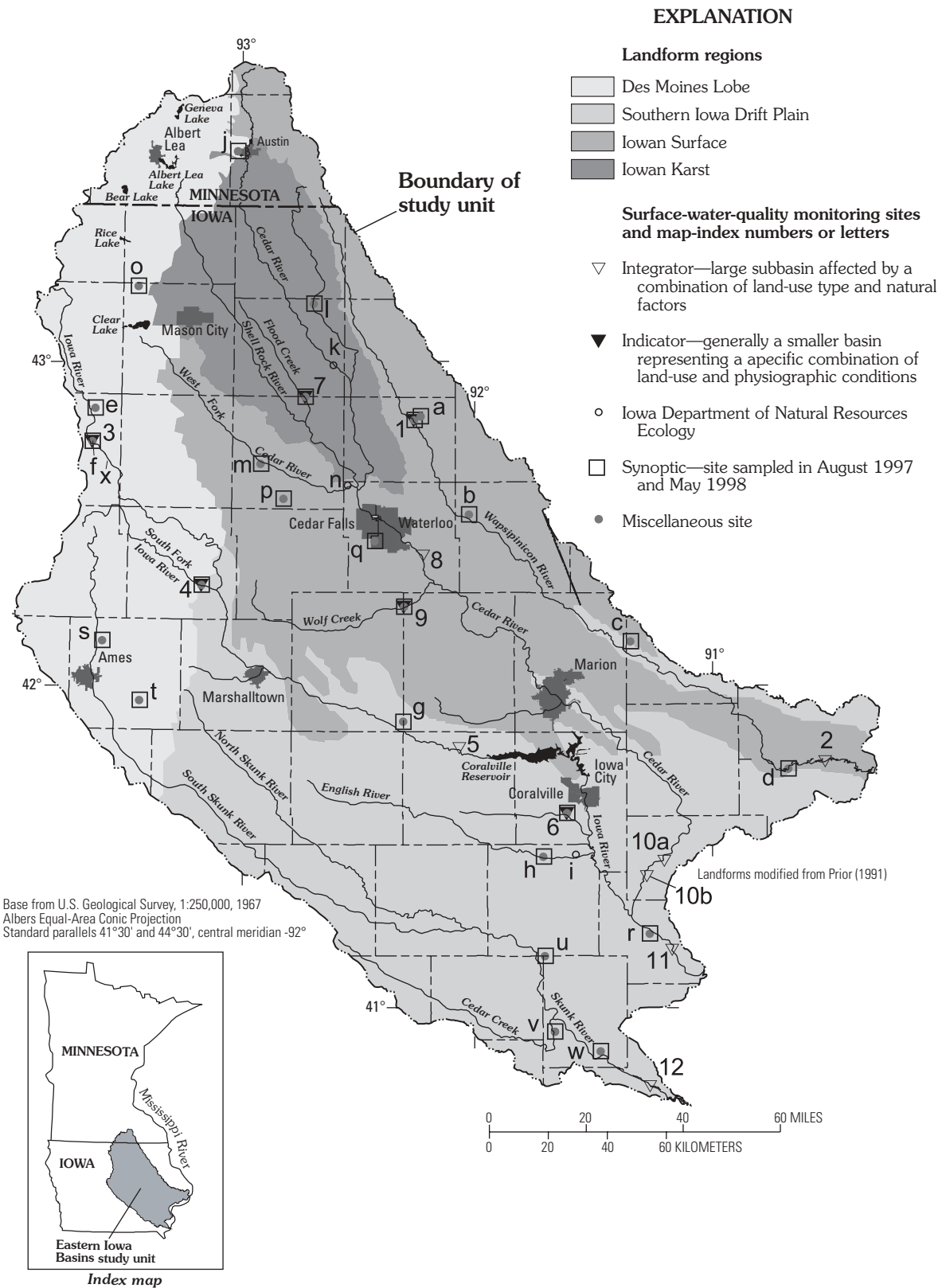
Land use and land cover in the EIWA study unit is primarily agricultural, with about 93 percent of the total area used for cropland or pasture. The principal crops are corn, soybeans, hay, and oats. The remaining land area consists of about 4 percent forests, about 2 percent urban, and about 1 percent water and wetlands (U.S. Geological Survey, 1990).

## IMPLEMENTATION OF WATER-QUALITY STUDIES

### Surface-Water-Quality Data Collection

#### Sampling Sites

The design of the surface-water-quality sampling program involved the selection of sites to increase the understanding of seasonal and spatial variability of physical and chemical water-quality characteristics in the EIWA study unit. The network of surface-water-quality sampling sites are referred to as basic fixed sites. The NAWQA basic-fixed-site network consists of two types of sites—integrator and indicator. Integrator basic fixed sites represent large subbasins in the study unit where the stream or river is affected by a combination of land-use types and natural factors. Indicator basic fixed sites are usually smaller basins and represent a specific combination of land-use and physiographic conditions. In the EIWA study unit, surface-water samples were collected at six integrator and six indicator sites (fig. 1 and table 1). The basic fixed sites were sampled monthly, and three sites (Iowa River near Rowan, Wolf Creek near Dysart, and Iowa River at Wapello) were designated as intensive sites and were sampled weekly to biweekly from April 1997 through November 1997. As part of the Iowa Department of Natural Resources monitoring network, additional samples for pesticide analysis were collected monthly at four sites by personnel from the University of Iowa Hygienics Laboratory. In addition, 25 sites were sampled as part of the Midwest regional synoptic study in August 1997 (Sorenson and others, 1999) and resampled in May 1998 (fig. 1). Supplemental samples from a tile drain located just upstream from the Iowa River near Rowan sampling site were also collected. Samples were also collected from three sites—Wheeler Creek near Rowan, Maynes Creek



**Figure 1.** Location of surface-water-quality sampling sites in Eastern Iowa Basins, October 1996 through September 1998.

**Table 1.** Surface-water sampling sites in Eastern Iowa Basins study unit[Sites are listed in downstream order. mi<sup>2</sup>, square miles; IDNR, Iowa Department of Natural Resources site; -- not determined]

Map-index number or letter (fig. 1)	Site identification number	Site	Location (degrees, minutes, seconds)		Drainage area (mi <sup>2</sup> )	Type of data <sup>1</sup>	Site type
			Latitude	Longitude			
1	05420680	Wapsipinicon River near Tripoli, IA	42°50'10"	92°15'26"	346	F, N, M, P, S	Indicator/synoptic
a	05420720	East Fork Wapsipinicon River near Tripoli, IA	42°50'51"	92°13'48"	144	F, N, M, P, S	Synoptic
b	05420900	Little Wapsipinicon River at Littleton, IA	42°32'27"	92°01'30"	147	F, N, M, P, S	Synoptic
c	05421700	Buffalo Creek near Stone City, IA	42°08'32"	91°20'44"	233	F, N, M, P, S	Synoptic
d	05421870	Mud Creek near Donahue, IA	41°44'17"	90°04'26"	119	F, N, M, P, S	Synoptic
2	05422000	Wapsipinicon River near DeWitt, IA	41°46'01"	90°32'05"	2,340	F, N, M, P, S	Integrator
e	05449200	East Branch Iowa River at Belmond, IA	42°51'48"	93°36'47"	195	F, N, M, P, S	Synoptic
3	05449500	Iowa River near Rowan, IA	42°45'36"	93°37'23"	418	F, N, M, P, S	Indicator/intensive/synoptic
f	05449600	Wheeler Creek near Rowan, IA	42°42'03"	93°33'28"	30	F, N, M, P, S, B	Miscellaneous
4	05451210	South Fork Iowa River northeast of New Providence, IA	42°18'54"	93°04'22"	224	F, N, M, P, S, B	Indicator/synoptic
g	05452020	Salt Creek at Belle Plaine, IA	41°53'31"	92°17'60"	217	F, N, M, P, S	Synoptic
5	05453100	Iowa River at Marengo, IA	41°48'48"	92°03'51"	2,790	F, N, M, P, S	Integrator
6	05455100	Old Man's Creek near Iowa City, IA	41°36'23"	91°36'56"	201	F, N, M, P, S	Indicator/synoptic
h	05455500	English River at Kalona, IA	41°28'11"	91°42'52"	574	F, N, M, P, S	Synoptic
i	05455570	English River at Riverside, IA	41°28'32"	91°34'49"	626	F, P	IDNR
j	05456510	Turtle Creek at Austin, MN	43°40'25"	93°01'11"	153	F, N, M, P, S	Synoptic
k	05457750	Cedar River near Carville, IA	43°00'23"	92°36'08"	1,075	F, P	IDNR
l	05457950	Little Cedar River near Floyd, IA	43°11'55"	91°41'14"	234	F, N, M, P, S	Synoptic
m	05458870	Maynes Creek near Kesley, IA	42°41'46"	92°54'28"	136	F, N, M, P, S, B	Synoptic
n	05458900	West Fork Cedar River near Finchford, IA	42°37'50"	92°32'24"	846	F, P	IDNR
o	05459300	Winnebago River near Fertile, IA	43°14'49"	93°26'16"	294	F, N, M, P, S	Synoptic
7	05461390	Flood Creek near Powersville, IA	42°54'26"	92°43'14"	150	F, N, M, P, S	Indicator/synoptic
p	05462770	Beaver Creek near Parkersburg, IA	42°35'15"	92°48'37"	145	F, N, M, P, S	Synoptic
q	05463510	Black Hawk Creek at Waterloo, IA	42°27'24"	92°25'21"	327	F, N, M, P, S	Synoptic
8	05464020	Cedar River at Gilbertville, IA	42°24'57"	92°13'07"	5,240	F, N, M, P, S	Integrator

**Table 1.** Surface-water sampling sites in Eastern Iowa Basins study unit—Continued

Map-index number or letter (fig. 1)	Site identification number	Site	Location (degrees, minutes, seconds)		Drainage area (mi <sup>2</sup> )	Type of data <sup>1</sup>	Site type
			Latitude	Longitude			
9	05464220	Wolf Creek near Dysart, IA	42°15'06"	92°17'55"	299	F, N, M, P, S,	Indicator/ intensive/ synoptic
10a	05464935	Cedar River near Nichols, IA	41°27'32"	91°12'90"	7,550	F, N, M, P, S	Integrator
10b	05465000	Cedar River near Conesville, IA	41°24'36"	91°17'06"	7,790	F, N, M, P, T, S	Integrator
r	05465310	Long Creek near Columbus Junction, IA	41°13'36"	91°16'32"	155	F, N, M, P, S	Synoptic
11	05465500	Iowa River at Wapello, IA	41°10'48"	91°10'57"	12,500	F, N, M, P, T, S	Indicator/ intensive
s	05469980	South Skunk River near Story City, IA	42°08'14"	93°34'02"	222	F, N, M, P, S	Synoptic
t	05471120	East Branch Indian Creek near Iowa Center, IA	41°57'08"	93°24'21"	128	F, N, M, P, S	Synoptic
u	05473060	Crooked Creek at Coppock, IA	41°09'31"	94°12'30"	284	F, N, M, P, S	Synoptic
v	05473400	Cedar Creek near Oakland Mills, IA	40°55'20"	91°40'10"	533	F, N, M, P, S	IDNR / synoptic
w	05473550	Big Creek near Lowell, IA	40°51'38"	91°28'49"	164	F, N, M, P, S	Synoptic
12	05474000	Skunk River at Augusta, IA	40°45'13"	91°16'40"	4,310	F, N, M, P, S	Integrator
x	42453909337200	Surface-water tile drain upstream from Iowa River near Rowan (site 3)	42°45'39"	93°37'20"	--	N	Tile drain

<sup>1</sup>Type of data: B, bed sediment; F, physical properties; M, major ions; N, nutrients; P, dissolved pesticides; S, suspended sediment; T, fish tissue.

near Kesley, and Iowa River near Rowan, in September 1998 to investigate water quality during low-flow conditions.

### Surface-Water Sample Collection

A complete discussion of the collection and processing of stream-water samples is described in Shelton (1994). All surface-water samples were obtained by collecting depth-integrated subsamples at equally spaced vertical sections across the stream (Ward and Harr, 1990). At each surface-water site, a minimum of 10 equally spaced water samples were collected using cable-mounted or hand-held samplers (Shelton, 1994). Typically, a hand-held sampler was used when wading small streams, and a cable-mounted sampler was used from a bridge for sampling small streams during high flow and larger streams. All equipment used in sampling and processing was rinsed with native water

before use. For sample splitting, a Teflon cone splitter was used. Sample water for pesticide analysis was passed through a 0.7- $\mu$ m, baked-glass fiber filter using a Teflon diaphragm pump and Teflon tubing. Samples for organic carbon analysis were filtered through a 47-mm diameter, 0.45- $\mu$ m silver membrane filter in a stainless-steel chamber pressurized by nitrogen gas. All samples were chilled and shipped by next-day air freight to the USGS National Water-Quality Laboratory (NWQL) for analysis. For chlorophyll analysis, 30 mL of sample water was filtered through a 47-mm-diameter, borosilicate glass fiber filter. The glass fiber filter was folded into quarters, wrapped in aluminum foil, and kept on ice and stored in the laboratory freezer until analyzed.

At each vertical section in the stream, surface-water measurements of specific conductance, pH, water temperature, and dissolved oxygen were

obtained with a multiprobe instrument. The median value for each physical property was then calculated and stored in the data base. Alkalinity was determined at the time of sample collection by incremental titration (Wood, 1981; Shelton, 1994). All equipment used to collect and process samples (with the exception of carbon) was cleaned with a 0.1-percent non-phosphate detergent, rinsed with deionized water, rinsed with certified pesticide-free methanol, air dried, wrapped in aluminum foil, and stored in a dust-free environment prior to sample collection (Shelton, 1994). Equipment used in the collection of dissolved organic carbon (DOC) and suspended organic carbon (SOC) was not rinsed with detergent or methanol but rinsed with deionized water certified by the manufacturer to be free of both pesticides and VOC's. Water samples for fecal-coliform and fecal-streptococci bacteria were collected and analyzed at each site using membrane filtration procedures and incubation (Myers and Wilde, 1997). All bottles and equipment used in the collection of bacteria samples were sterilized in an autoclave and wrapped in foil before sample collection.

### Biologic Sample Collection

Biological studies evaluate the effects of physical and chemical characteristics of water and hydrologic conditions on aquatic biota, and how biological and habitat characteristics differ among environmental settings in the study unit. Fish-tissue samples are the primary means by which trace elements and hydrophobic organic contaminants are initially assessed. Fish-tissue samples were collected at two sites in 1997.

Fish were collected using electroshocking equipment carried on either a backpack, barge, or boat. Flat-head catfish (*Pylodictis olivaris*) was the target taxon at the sampling site on the Cedar River near Conesville (site 10b, fig. 1), and channel catfish (*Ictalurus punctatus*) was the target taxon at the sampling site on the Iowa River at Wapello (site 11, fig. 1).

Samples consisted of a composite of four to five fish of the same species and similar size. Each fish in a sample was measured, weighed, and examined for external anomalies such as parasites, lesions, tumors, and diseases. Powderless latex gloves were worn at all times during fish collection and processing. For analysis of organic compounds, fish were dissected with a stainless-steel scalpel blade (precleaned with methanol), examined for gender, and individually wrapped in heavy-duty aluminum foil (dull side towards fish)

and then placed into a polyethylene bag. Following processing, all fish samples were placed on dry ice at the sampling site in preparation for shipment to the analytical laboratory. If long-term storage was necessary, the samples were stored in a freezer.

### Analytical Procedures

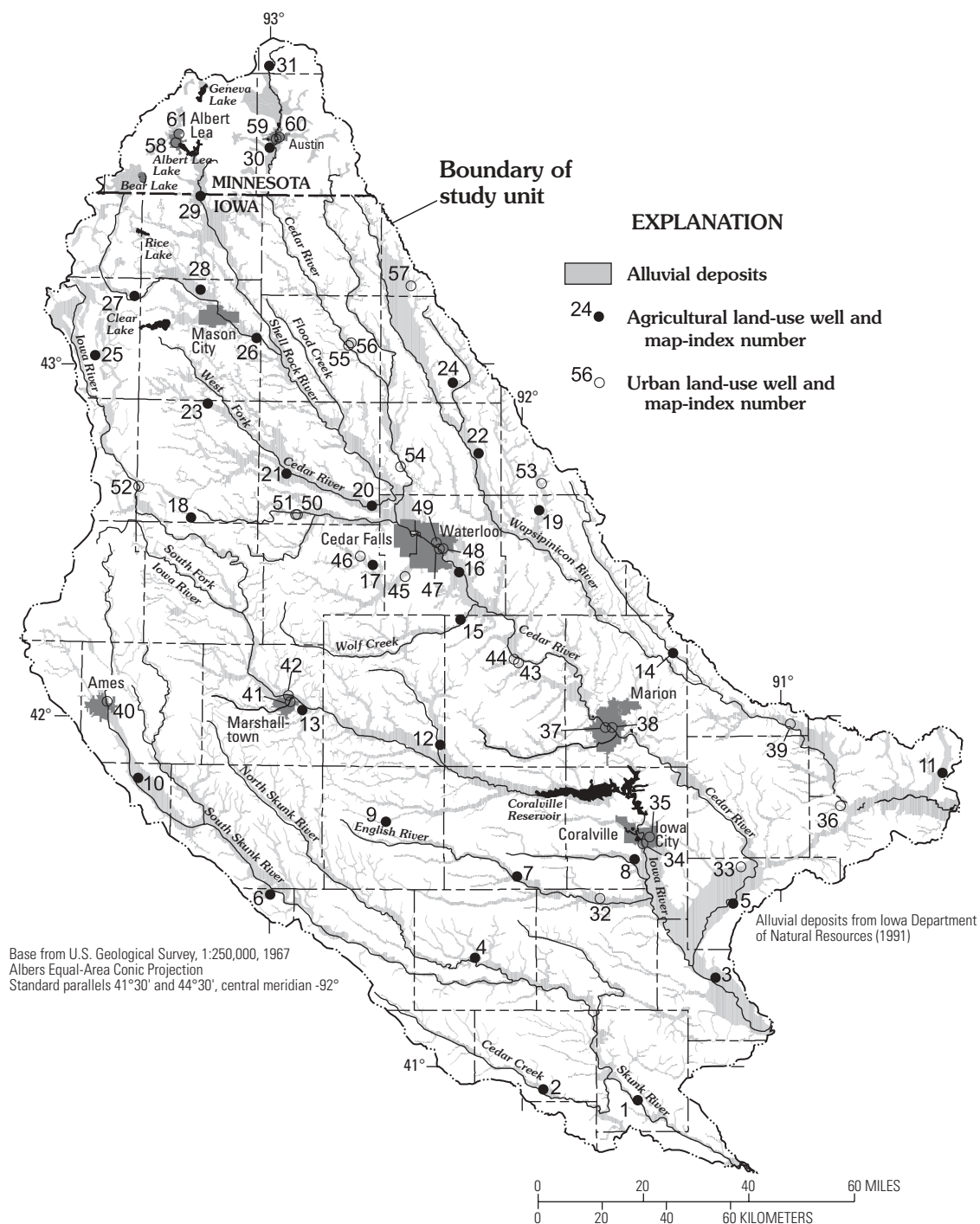
For the analysis of major ions, nutrients, DOC, SOC, and pesticides, surface-water samples were sent to the NWQL in Arvada, Colorado. The NWQL was also used to analyze for pesticides in fish tissue. Whole fish were composited for pesticide analysis. The analytical methods used in all sample processing can be found in tables 6–9 at the end of this report.

### Ground-Water-Quality Data Collection

Data were collected for three EIWA alluvial ground-water studies. A land-use study was conducted to evaluate the effects of agricultural and urban land use on the water quality of shallow alluvial aquifers in the EIWA study unit. Shallow ground-water monitoring wells were constructed by the USGS in alluvial aquifers at 31 agricultural and 30 urban sites (fig. 2, table 2). Urban areas in the study unit are typically small and often surrounded by agricultural cropland. Ground-water samples were collected from these 61 wells during June–August 1997. Surficial alluvial deposits in the study unit are restricted to Holocene-age river valleys (fig. 2) and commonly consist of 30 to 100 ft of unconsolidated sand and gravel interbedded with less permeable silt and clay (Steinhilber and Horick, 1970; Wahl and others, 1978; Hoyer and Hallberg, 1991; Olcott, 1992).

A study-unit survey was conducted to provide a broad assessment of the water quality of shallow alluvial aquifers in the EIWA study unit. Ground-water samples were collected from 32 domestic wells (fig. 3, table 3) during June–July 1998.

A ground-water study to investigate the effects of changing land use on shallow ground-water quality was conducted in the Iowa River alluvial aquifer (fig. 4, table 4). The study area for the Iowa River alluvial aquifer encompasses 83 mi<sup>2</sup> along a 16-mi reach of the Iowa River in east-central Iowa (Savoca and others, 1997). Samples were collected from 27 shallow ground-water monitoring wells during August 1998. The river valley is underlain by alluvial clay, silt, sand, and gravel of variable thickness (10 to 55 ft); the



**Figure 2.** Distribution of alluvial deposits and location of sampling sites for land-use study.

**Table 2.** Land-use study wells sampled in 1997

Map-index number (fig. 2)	Well identification number	Local identifier <sup>1</sup>	Location (degrees, minutes, seconds)		Well depth (feet)	County, State
			Longitude	Latitude		
Agricultural land-use wells						
1	405405091335001	070N 06W 04 BBB	40°54'04"	91°33'50"	10.0	Henry, IA
2	405601091551901	071N 09W 20 CDB	40°56'01"	91°55'19"	18.0	Jefferson, IA
3	411511091155101	075N 04W 36 DBC	41°15'10"	91°15'51"	18.5	Louisa, IA
4	411843092105101	075N 11W 07 CCB	41°18'43"	92°10'51"	26.0	Keokuk, IA
5	412755091114101	077N 03W 16 DDC	41°27'55"	91°11'41"	18.0	Muscatine, IA
6	412927092575201	077N 18W 08 BBD	41°29'27"	92°57'52"	17.0	Marion, IA
7	413248092011301	078N 10W 21 BCD	41°32'49"	92°01'13"	18.0	Iowa, IA
8	413540091341201	078N 06W 05 ACB	41°35'40"	91°34'12"	17.0	Johnson, IA
9	414208092312601	080N 14W 31 BAA	41°42'08"	92°31'26"	18.0	Poweshiek, IA
10	414912093284201	081N 23W 24 BBA	41°49'12"	93°28'42"	20.0	Polk, IA
11	414958090230301	081N 05E 09 CAD	41°49'58"	90°23'02"	22.5	Clinton, IA
12	415527092190301	082N 13W 12 CBC	41°55'27"	92°19'03"	22.5	Tama, IA
13	420117092505601	083N 17W 08 ABA	42°01'16"	92°50'56"	23.0	Marshall, IA
14	421115091250501	085N 05W 10 BDC	42°11'15"	91°25'05"	23.0	Linn, IA
15	421705092142501	086N 12W 04 DDD	42°17'06"	92°14'25"	17.5	Benton, IA
16	422518092144701	088N 12W 21 ACD	42°25'18"	92°14'48"	17.5	Black Hawk, IA
17	422629092345001	088N 15W 10 DAD	42°26'44"	92°34'27"	17.0	Grundy, IA
18	423419093172401	090N 21W 26 DCC	42°34'19"	93°17'24"	12.5	Franklin, IA
19	423557091560501	090N 09W 20 BAA	42°35'57"	91°56'05"	17.5	Buchanan, IA
20	423639092350901	090N 15W 14 BAC	42°36'39"	92°35'09"	17.5	Butler, IA
21	424203092551301	091N 18W 12 CDC	42°42'03"	92°55'12"	17.5	Butler, IA
22	424548092101701	092N 11W 20 CAD	42°45'48"	92°10'17"	15.0	Bremer, IA
23	425401093135201	093N 20W 05 ACB	42°54'01"	93°13'52"	20.0	Franklin, IA
24	425756092162401	094N 12W 09 CCD	42°57'56"	92°16'24"	16.0	Chickasaw, IA
25	430159093403201	095N 24W 21 ADA	43°01'59"	93°40'32"	26.5	Hancock, IA
26	430525093023501	096N 19W 36 CBB	43°05'25"	93°02'35"	11.5	Cerro Gordo, IA
27	431222093313301	097N 23W 23 ACC	43°12'22"	93°31'33"	21.5	Hancock, IA
28	431339093155901	097N 21W 13 ABA	43°13'39"	93°15'59"	12.0	Freeborn, MN
29	432946093161901	100N 20W 12 BDD	43°29'47"	93°16'18"	28.0	Worth, IA
30	433815093000001	102N 18W 16 CAA	43°38'15"	93°00'00"	16.0	Mower, MN
31	435221093001901	105N 18W 29 ADA	43°52'25"	93°00'20"	15.0	Dodge, MN
Urban land-use wells						
32	412855091421601	077N 07W 07 DCC	41°28'55"	91°42'16"	25.0	Washington, IA
33	413414091095501	078N 03W 11 CDA	41°34'15"	91°09'55"	27.5	Muscatine, IA
34	413823091322301	079N 06W 22 BBC	41°38'23"	91°32'23"	27.5	Johnson, IA
35	413933091304701	079N 06W 11 CDA	41°39'34"	91°30'48"	37.5	Johnson, IA
36	414435090465101	080N 02E 07 CCD	41°44'35"	90°46'51"	27.5	Scott, IA



**Table 2.** Land-use study wells sampled in 1997

Map-index number (fig. 2)	Well identification number	Local identifier <sup>1</sup>	Location (degrees, minutes, seconds)		Well depth (feet)	County, State
			Longitude	Latitude		
Urban land-use wells—Continued						
37	415825091405601	083N 07W 29 AAC	41°58'25"	91°40'56"	27.5	Linn, IA
38	415827091392401	083N 07W 27 BBC	41°58'27"	91°39'24"	27.5	Linn, IA
39	415850090572201	083N 01W 22 CBC	41°58'50"	90°57'22"	18.5	Jones, IA
40	420219093361301	084N 24W 36 CBC	42°02'19"	93°36'13"	27.5	Story, IA
41	420240092535001	084N 18W 36 BDB	42°02'40"	92°53'51"	32.5	Marshall, IA
42	420347092541601	084N 18W 26 AAA	42°03'47"	92°54'16"	22.5	Marshall, IA
43	420936092005701	084N 10W 21 ACC	42°09'36"	92°00'57"	22.5	Benton, IA
44	421012092020101	085N 10W 17 DCA	42°10'12"	92°02'01"	27.0	Benton, IA
45	422426092272401	088N 14W 27 ADD	42°24'26"	92°27'25"	27.5	Black Hawk, IA
46	422754092375301	088N 15W 05 BCB	42°27'55"	92°37'53"	17.5	Grundy, IA
47	422913092192501	089N 13W 25 DDB	42°29'13"	92°19'25"	28.0	Black Hawk, IA
48	422918092183901	089N 12W 30 CDB	42°29'19"	92°18'39"	23.0	Black Hawk, IA
49	423018092200901	089N 13W 24 CBB	42°30'18"	92°20'09"	22.5	Black Hawk, IA
50	423459092523701	090N 17W 29 ABB	42°34'59"	92°52'37"	22.5	Butler, IA
51	423459092530501	090N 17W 29 BBA	42°34'59"	92°53'05"	20.5	Butler, IA
52	423930093294901	091N 22W 31 BBB	42°39'30"	93°29'49"	17.5	Franklin, IA
53	424034091553401	091N 09W 20 DAC	42°40'34"	91°55'34"	18.5	Fayette, IA
54	424322092283901	091N 14W 03 ADC	42°43'23"	92°28'41"	23.5	Bremer, IA
55	430414092405801	095N 16W 01 CDA	43°04'13"	92°40'59"	18.5	Floyd, IA
56	430442092402201	095N 16W 01 ADA	43°04'42"	92°40'22"	17.5	Floyd, IA
57	431438092262201	097N 14W 01 DDC	43°14'38"	92°26'22"	18.0	Howard, IA
58	433855093222401	102N 21W 08 DAC	43°38'55"	93°22'25"	18.0	Freeborn, MN
59	433944092583501	102N 18W 03 DCA	43°39'45"	92°58'35"	18.0	Mower, MN
60	434003092575401	102N 18W 02 BCD	43°40'05"	92°57'55"	18.0	Mower, MN
61	434023093214201	102N 21W 04 BAB	43°40'25"	93°21'40"	18.0	Freeborn, MN

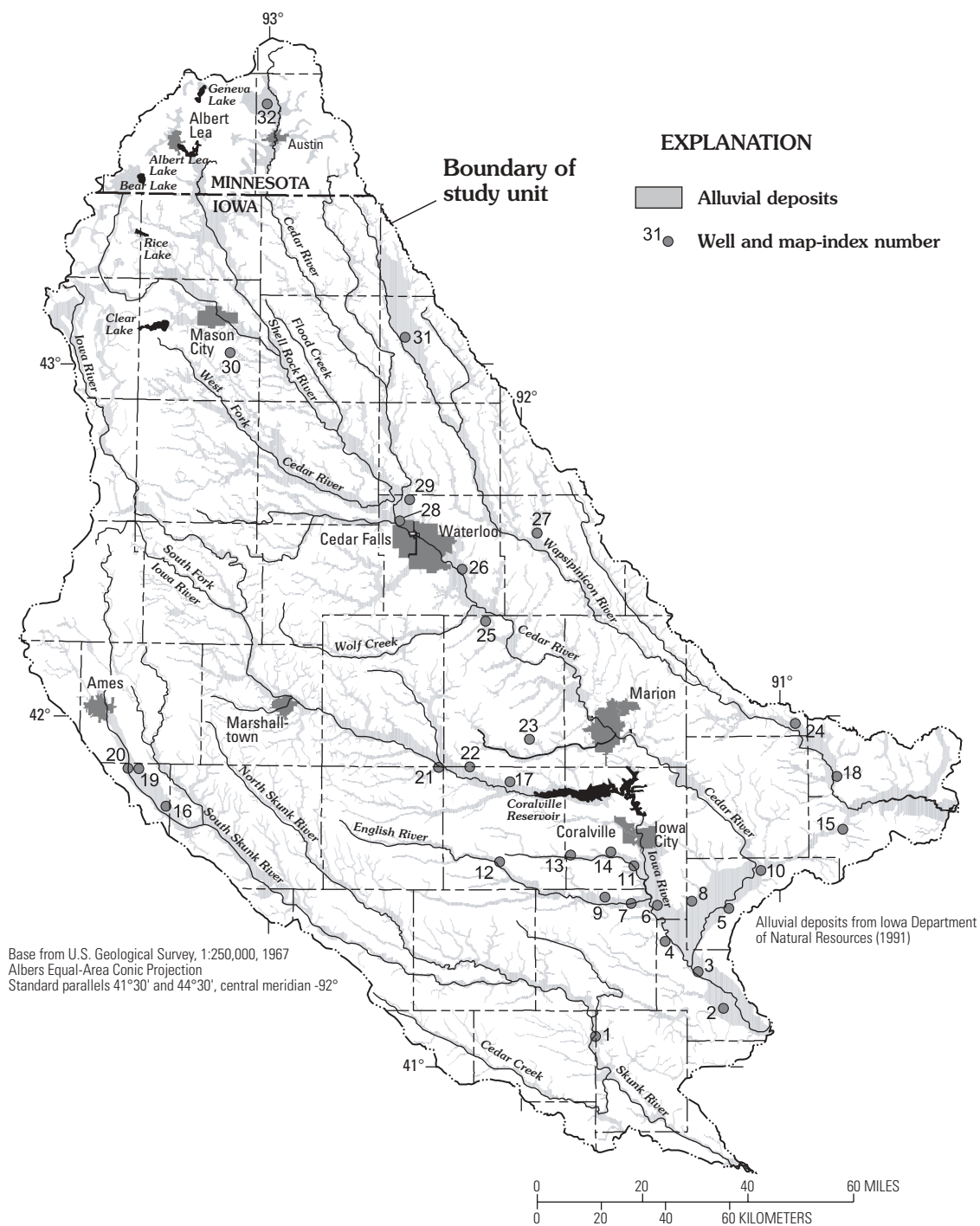
<sup>1</sup>The local identifier is in accordance with the Bureau of Land Management's system of land subdivision. Each identifier is made up of three segments. The first segment indicates the township, the second the range, and the third the section in which the well is located. The letters after the section represent subdivisions of the section and are assigned in a counterclockwise direction. The first letter denotes a 160-acre tract, the second a 40-acre tract, and the third a 10-acre tract.

alluvial deposits are underlain by glacial till (Detroy and Kuzniar, 1988).

### Site Selection

Potential land-use and study-unit survey well locations were identified using a stratified random selection process (Scott, 1990) and geographic-information-system land-use and hydrogeologic coverages. Onsite reconnaissance within a 1-mi radius

of each potential well location was conducted to determine if a suitable drilling site or domestic well could be found. Land-use-study site-selection criteria included the presence of a selected land-use and hydrogeologic setting, no known point source of contamination in the vicinity of site, whether the site was accessible to a drill rig, and whether permission to drill and sample the well could be obtained from the land-owner. Well depths ranged from 10 to 37.5 ft. Study-

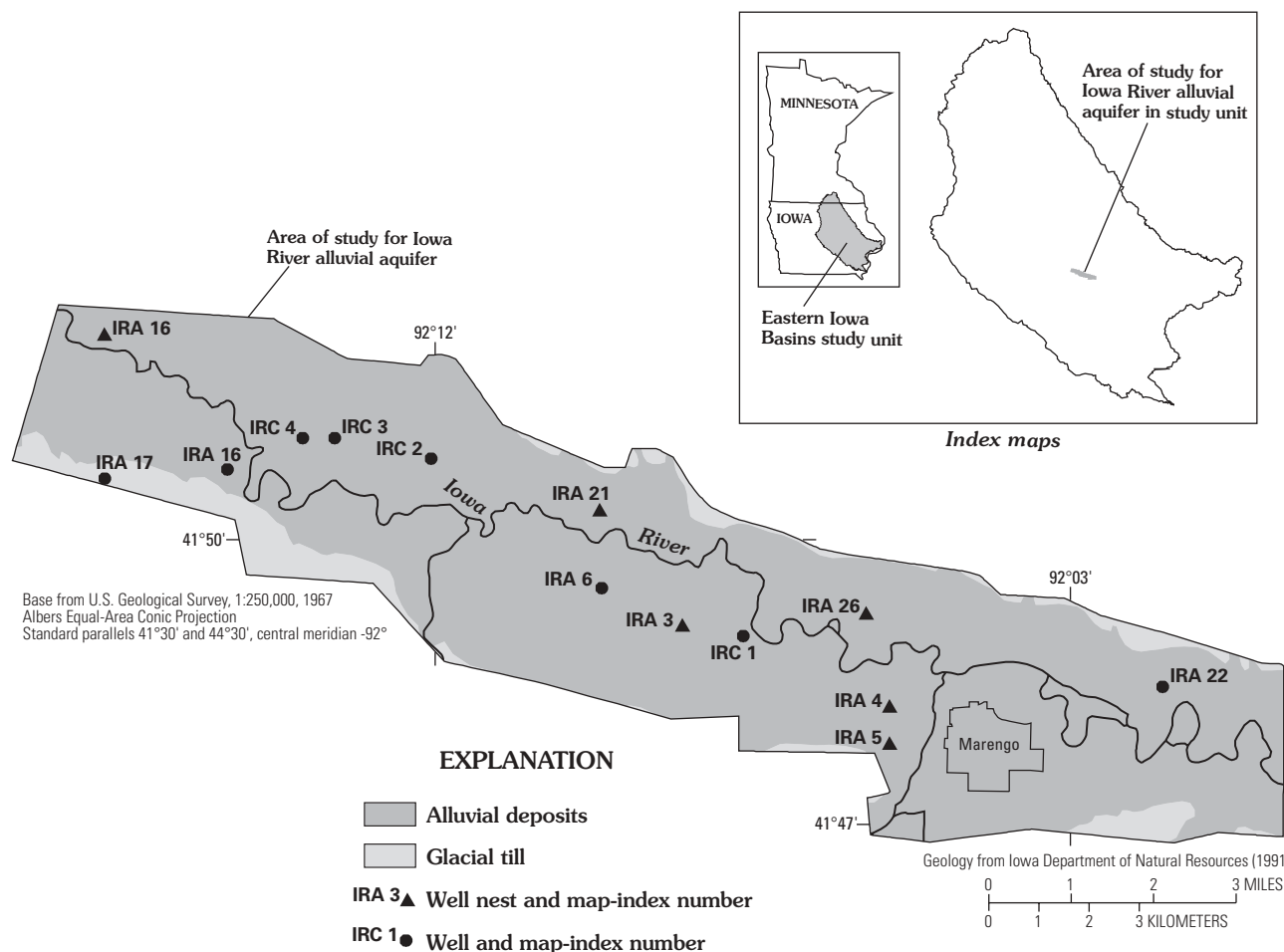


**Figure 3.** Distribution of alluvial deposits and location of alluvial study-unit survey wells.

**Table 3.** Alluvial study-unit survey wells sampled in 1998

Map-index number (fig. 3)	Well identification number	Local identifier <sup>1</sup>	Location (degrees, minutes, seconds)		Well depth (feet)	County, State
			Latitude	Longitude		
1	410513091430401	073N 08W 36 AAD	41°05'15"	91°43'05"	14.0	Jefferson, IA
2	410956091135601	074N 03W 32 CBD	41°09'55"	91°19'35"	25.0	Louisa, IA
3	411622091193401	075N 04W 28 BDB	41°16'20"	91°19'35"	70.0	Louisa, IA
4	412136091270501	076N 05W 29 ACD	41°21'35"	91°27'05"	54.0	Louisa, IA
5	412711091122401	077N 03W 21 CDD	41°27'10"	91°12'25"	193.0	Muscatine, IA
6	412748091285101	077N 05W 19 BCB	41°27'50"	91°28'50"	94.0	Johnson, IA
7	412808091345001	077N 06W 18 DDD	41°28'10"	91°34'50"	20.0	Washington, IA
8	412831091205601	077N 04W 18 ADD	41°28'30"	91°20'55"	40.0	Muscatine, IA
9	412916091405101	077N 07W 08 DBA	41°29'15"	91°40'50"	125.0	Washington, IA
10	413338091045601	078N 06W 08 ACC	41°33'40"	91°04'55"	12.0	Muscatine, IA
11	413438091341201	078N 02W 16 ACA	41°34'40"	91°34'10"	80.0	Johnson, IA
12	413523092050501	078N 11W 23 DDD	41°35'25"	92°05'05"	30.0	Iowa, IA
13	413634091484301	079N 08W 32 BCB	41°36'35"	91°48'45"	177.0	Johnson, IA
14	413705091392701	079N 07W 28 DAD	41°37'05"	91°39'25"	40.0	Johnson, IA
15	414036090460001	079N 02E 06 ADC	41°40'35"	90°46'00"	94.0	Scott, IA
16	414430093220001	080N 22W 13 BCB	41°44'30"	93°22'00"	20.0	Polk, IA
17	414914092024001	081N 10W 17 CCB	41°49'15"	92°02'40"	40.0	Iowa, IA
18	414944090470901	081N 01E 13 AAB	41°49'45"	90°47'10"	65.0	Clinton, IA
19	415053093282401	081N 23W 12 BAA	41°50'55"	93°28'25"	70.0	Polk, IA
20	415057093304801	081N 23W 10 BAA	41°50'55"	93°30'50"	50.0	Polk, IA
21	415139092190801	081N 13W 02 AAA	41°51'40"	92°19'10"	25.0	Poweshiek, IA
22	415147092115301	082N 12W 36 CCC	41°51'45"	92°11'55"	28.0	Benton, IA
23	415637091581001	082N 10W 02 ADA	41°56'35"	91°58'10"	20.0	Benton, IA
24	415859090563901	083N 01W 22 ACC	41°59'00"	90°56'40"	22.0	Jones, IA
25	421657092081801	086N 11W 09 BBA	42°16'55"	92°08'20"	60.0	Benton, IA
26	422555092135201	088N 12W 15 CAC	42°25'55"	92°13'50"	48.0	Black Hawk, IA
27	423208091562101	089N 09W 08 BCA	42°32'10"	91°56'20"	54.0	Buchanan, IA
28	423409092283001	090N 14W 35 BBB	42°34'10"	92°28'30"	150.0	Black Hawk, IA
29	423749092260801	090N 13W 06 CCB	42°37'50"	92°26'10"	55.0	Black Hawk, IA
30	430255093083301	092N 20W 13 AAD	43°02'55"	93°08'35"	43.0	Cerro Gordo, IA
31	430549092272301	096N 14W 35 AAA	43°05'50"	92°27'25"	80.0	Chickasaw, IA
32	434556093003501	104N 18W 32 DAD	43°45'55"	93°00'35"	150.0	Mower, MN

<sup>1</sup>The local identifier is in accordance with the Bureau of Land Management's system of land subdivision. Each identifier is made up of three segments. The first segment indicates the township, the second the range, and the third the section in which the well is located. The letters after the section represent subdivisions of the section and are assigned in a counterclockwise direction. The first letter denotes a 160-acre tract, the second a 40-acre tract, and the third a 10-acre tract.



**Figure 4.** Location of ground-water-quality sampling sites in Iowa River alluvial aquifer, 1998.

unit survey well-selection criteria included whether an existing domestic well was completed in an alluvial aquifer, whether permission to sample the well could be obtained from the landowner, whether the depth of the well was known, whether the well was equipped with a submersible pump, and whether a sample could be obtained upgradient from a pressure tank or treatment system. Well depths range from 12 to 193 ft. Information about the well was obtained from well-owner interviews and driller's logs. If a suitable site or well could not be found at a primary location, a search was initiated at the closest alternate location.

The wells sampled for the Iowa River alluvial aquifer study were selected from a previous USGS and Iowa Department of Natural Resources monitoring-well network (Detroy and Kuzniar, 1988) and four wells drilled by the USGS in 1996 (Savoca and others, 1997). Well locations were selected on the basis of proximity to areas of anticipated changes in land use,

proximity to areas of continuing agricultural activity, and a desire for broad distribution throughout the study area. Well depths ranged from 8 to 40 ft. Six wells locations consisted of well nests of two to six wells that were screened at various depths within the alluvial aquifer.

### Well Installation

Ground-water monitoring wells were completed in alluvial aquifers during August 1996–July 1997 at 31 agricultural and 30 urban land-use sites using procedures described by Lapham and others (1995). Boreholes were drilled using 4.25-in. inside-diameter, continuous-flight hollow-stem augers. The augers were left in place during well construction to prevent borehole collapse. Samples of surficial deposits obtained during well drilling were analyzed for particle size and organic carbon content. Wells were

**Table 4.** Iowa River alluvial aquifer wells sampled in 1998

Map-index number (fig. 4)	Well identification number	Local identifier <sup>1</sup>	Location (degrees, minutes, seconds)		Well depth (feet)	County, State
			Latitude	Longitude		
IRA 5	414752092053201	081N 11W 26 ACC	41°47'52"	92°05'32"	30.0	Iowa, IA
	414752092053202	081N 11W 26 ACC	41°47'52"	92°05'32"	13.0	Iowa, IA
	414752092053203	081N 11W 26 ACC	41°47'52"	92°05'32"	10.0	Iowa, IA
IRC 4	414816092053401	081N 11W 23 DCC	41°48'16"	92°05'34"	31.0	Iowa, IA
	414816092053402	081N 11W 23 DCC	41°48'16"	92°05'34"	13.5	Iowa, IA
	414816092053403	081N 11W 23 DCC	41°48'16"	92°05'34"	11.0	Iowa, IA
IRA 26	414818092055401	081N 11W 14 CCA	41°49'15"	92°05'54"	22.5	Iowa, IA
	414818092055402	081N 11W 14 CCA	41°49'15"	92°05'54"	13.5	Iowa, IA
	414818092055403	081N 11W 14 CCA	41°49'15"	92°05'54"	11.0	Iowa, IA
IRA 22	414828092014201	081N 10W 20 DAC	41°48'28"	92°01'42"	25.0	Iowa, IA
IRC 1	414900092073801	081N 11W 21 ABD	41°49'00"	92°07'38"	22.5	Iowa, IA
IRA 3	414907092083001	081N 11W 20 AAA	41°49'07"	92°08'30"	29.0	Iowa, IA
	414907092083003	081N 11W 20 AAA	41°49'07"	92°08'30"	15.5	Iowa, IA
	414907092083004	081N 11W 20 AAA	41°49'07"	92°08'30"	8.0	Iowa, IA
IRA 6	414930092093801	081N 11W 17 CBB	41°49'30"	92°09'38"	30.0	Iowa, IA
IRA 21	415020092094001	081N 11W 07 DAA	41°50'20"	92°09'40"	25.0	Iowa, IA
	415020092094002	081N 11W 07 DAA	41°50'20"	92°09'40"	18.0	Iowa, IA
	415020092094003	081N 11W 07 DAA	41°50'20"	92°09'40"	15.0	Iowa, IA
	415020092094004	081N 11W 07 DAA	41°50'20"	92°09'40"	12.0	Iowa, IA
	415020092094005	081N 11W 07 DAA	41°50'20"	92°09'40"	8.0	Iowa, IA
	415020092094010	081N 11W 07 DAA	41°50'20"	92°09'40"	32.0	Iowa, IA
IRA 17	415039092164001	081N 12W 05 CCC	41°50'39"	92°16'40"	40.0	Iowa, IA
IRA 19	415045092145601	081N 12W 09 ABC	41°50'45"	92°14'56"	25.0	Iowa, IA
IRC 2	415052092120301	081N 12W 11 AAD	41°50'52"	92°12'03"	27.5	Iowa, IA
IRC 3	415105092132501	081N 12W 03 DDB	41°51'05"	92°13'25"	22.5	Iowa, IA
IRC 4	415105092135201	081N 12W 03 CDA	41°51'05"	92°13'52"	22.5	Iowa, IA
IRA 16	415211092164101	082N 12W 31 DAD	41°52'11"	92°16'41"	26.0	Benton, IA
	415211092164102	082N 12W 31 DAD	41°52'11"	92°16'41"	15.0	Benton, IA

<sup>1</sup>The local identifier is in accordance with the Bureau of Land Management's system of land subdivision. Each identifier is made up of three segments. The first segment indicates the township, the second the range, and the third the section in which the well is located. The letters after the section represent subdivisions of the section and are assigned in a counterclockwise direction. The first letter denotes a 160-acre tract, the second a 40-acre tract, and the third a 10-acre tract.

constructed of 2-in. outside-diameter, flush-threaded polyvinyl-chloride (PVC) casing and 5 ft of 0.02-in. slotted PVC screen at the base of each well. Well depths ranged from 10 to 37.5 ft below land surface. Aquifer material was allowed to fill the annular space around the screen during removal of the augers to form a natural filter pack extending about 2 ft above the top of the screen. An artificial sand-filter pack was placed around the screen in wells containing fine-grained material adjacent to the screened interval. A bentonite annular seal was placed above the filter pack, and the remainder of the borehole was backfilled with well cuttings to within a few feet of land surface. A lockable, protective steel casing set in a concrete pad was installed at land surface to protect the well casing and to prevent infiltration of surface water down the well. Wells were developed after completion. The augers and associated drilling equipment were steam cleaned between well sites.

### **Ground-Water Sample Collection**

The sampling procedures for the ground-water studies are described by Koterba and others (1995). Before sample collection, all sampling equipment was thoroughly cleaned. Sampling lines and hoses were cleaned by circulating a 0.1-percent, nonphosphate detergent solution through the entire system with a peristaltic pump for 10 minutes. The lines then were rinsed with 3 to 4 gal of deionized water. All sampling and preservation chamber stands were rinsed with deionized water. All filter assemblies were also washed with a 0.1-percent, nonphosphate detergent solution and rinsed with deionized water, with the exception of the DOC filter, which was washed and rinsed with certified pesticide- and VOC-free deionized water. Cleaned equipment was wrapped in aluminum foil and placed in clean plastic bags.

Before sample collection, the static water level was recorded, and the wells were purged of at least three casing volumes of water. Pumping continued until measured values of specific conductance, pH, water temperature, and dissolved oxygen stabilized. Samples then were collected by filling containers in a sampling chamber made by placing a polyethylene bag over a PVC frame. All bottles were filled inside the sampling chamber to minimize the potential for contamination. Holes were cut in the bag for the inflow hose, waste discharge, and access for sampling. Powderless latex gloves were worn during sampling. To begin sampling, flow valves were switched to route the

water into the sampling chamber, and the sampling lines were flushed for several minutes. For organic-analyses samples, all sampling lines and connections between the faucet and the sampling chamber were Teflon or stainless steel. Except for the baked glass bottles, all bottles were rinsed three times with pumped sample water before filling. Samples were collected at each site for analysis of alkalinity, nutrients, major ions, DOC, pesticides, VOC's, radon-222, tritium, and stable isotopes.

Samples for pesticide analyses were filtered using a 142-mm-diameter, 0.7- $\mu$ m glass fiber filter. DOC samples were collected and filtered with a stainless-steel filter assembly and a 47-mm-diameter, 0.45- $\mu$ m silver membrane filter. Filtration was done under pressure from nitrogen gas.

All samples were preserved and treated immediately after collection. Samples for VOC's were treated with a 1:1 hydrochloric acid solution (HCl). Samples for major ions were treated with 1 mL of nitric acid. All samples then were chilled for shipment to NWQL.

Radon-222 samples were collected by inserting a syringe through a gas-impermeable membrane in the gas-collection tube and withdrawing 15 mL of sample water. To allow the withdrawal of sample water without degassing, sufficient backpressure was created by closing a valve in the sample-collection tube. The syringe then was inverted (needle up) and voided until all air bubbles were gone and only 10 mL of sample remain in the barrel. The sample then was injected (needle down) into a vial at the base of a mineral oil layer. The vial was capped and shaken for approximately 10 seconds. Radon-222 samples were shipped by next-day air freight the day of collection.

### **Analytical Procedures**

For the analysis of major ions, nutrients, DOC, pesticides, VOC's, and radon, ground-water samples were sent to the NWQL in Arvada, Colorado. Ground-water samples were analyzed for tritium at the USGS Isotope Tracers Project Laboratory in Menlo Park, California, and for environmental isotopes at the USGS National Research Program in Reston, Virginia. The analytical methods used in all sample processing are listed in tables 6–9 at the end of this report.

## Water-Quality Analysis and Quality Control

Analytical results are evaluated in the context of minimum reporting levels (MRLs) and method detection limits (MDLs) established by NWQL. The MRL is the minimum concentration of an analyte that can be reliably measured and reported by the laboratory using a specific analytical method. MRLs are commonly reported with analytical results for major ions, nutrients, DOC, radiochemicals, and VOCs. The MDL is the minimum concentration of a substance that can be identified, measured, and reported with 99-percent confidence that the analyte concentration is greater than zero. MDLs are generally smaller and better defined statistically than MRLs, and are commonly reported with analytical results for pesticides (Zaugg and others, 1995). MRLs and MDLs provide information about relative analytical precision and detection sensitivity but do not constitute low concentration reporting limits for conclusively identified analytes (Zaugg and others, 1995). Concentration values less than the lowest calibration standard are reported as estimated by NWQL. Estimated values indicate analyte detection; however, the reported concentration value is uncertain.

### Surface Water

The NAWQA surface-water quality-control design philosophy is described in detail by Mueller and others (1997). About 15 percent of the total samples collected for the EIWA were analyzed for quality control. Quality-control samples submitted for October 1996 through September 1998 included equipment blank samples done on two sets of sampling equipment, 15 field blank samples, 28 replicate samples, 19 spike samples, three of which were for a high-spike experiment, and laboratory surrogate recoveries. Equipment blank samples of deionized water certified by the manufacturer to be free of pesticides and VOC's and deionized water certified by the manufacturer to be free of inorganic compounds were passed through all sampling equipment at the beginning of the data-collection season to verify the initial cleanliness of the sampling equipment. Field blank samples of the same deionized water that was used with equipment blank samples, were collected by passing the deionized water through all pumps, filter plates, and filters to verify cleanliness of sampling equipment and technique. Field blank samples verified that the surface-water samples were not contaminated from either the

sampling equipment, transport of the equipment, or the cleaning procedures done between sites. Blank samples (equipment and field) indicated that all constituent concentrations were less than the MDL for all samples.

The objective of the replicate samples was to estimate the precision of concentration values from sample processing and analysis. Analysis of organic constituents are generally more variable than analyses of inorganic constituents. In particular, replicate samples for pesticides were an important way to evaluate the consistency of the identifying target constituent. Each replicate sample is an aliquot of the native sample water processed through the cone splitter, passed through the same sample equipment, and prepared in the same way.

A spike sample is a water sample to which a laboratory-certified concentration of selected analytes has been added. Spike samples were used to estimate percentage recovery and possible degradation of the analyte concentration during sample processing and analysis. Table 5 summarizes the percentage recovery data for commonly detected pesticides from 16 water samples that were spiked at the sampling sites from October 1996 through September 1997. The mean spike recoveries ranged from 76 to 106 percent, and the median spike recoveries ranged from 82 to 106 percent.

In addition, a high-spike recovery experiment was performed to check the recovery of selected pesticide compounds at higher spike concentrations (3.0 and 6.0 µg/L) in sample water. Three water samples collected at Old Man's Creek near Iowa City (site 6, fig. 1) on May 8, 1998, were spiked at low (0.1 µg/L), medium (3.0 µg/L), and high (6.0 µg/L) concentrations. The spike recoveries at the higher concentrations (3.0 and 6.0 µg/L) were not significantly different than those done at the lower (0.1 µg/L) concentrations.

A surrogate compound is an organic compound that has physical and chemical properties similar to the analytes being measured but typically is not present in the sample. A surrogate compound is added to each pesticide sample that is processed at the NWQL as part of their quality-control protocols. The percentage recovery of the surrogate compounds allows a quality check on the amount of recovery for the pesticide sample. Surrogate recoveries were typically between 80 and 120 percent for the pesticide compounds and are listed in table 15 later in this report.

**Table 5.** Summary of percentage recovery data for commonly detected pesticides spiked at sampling sites for Eastern Iowa Basins study unit, October 1996 through September 1998

Constituent	Spiked recovery percentage			
	Minimum	Maximum	Mean	Median
Acetochlor	78	142	103	99
Alachlor	84	139	106	106
Atrazine	83	132	106	104
Cyanazine	35	162	86	82
Metolachlor	19	163	101	102
Metribuzin	57	110	78	82
Prometon	83	118	91	99
Simazine	84	124	90	97
Trifluralin	67	116	76	88

### Ground Water

Quality-control samples were collected during the ground-water studies to evaluate the effects of sample collection and laboratory methods on analytical results. Quality-control samples consisted of equipment blank samples, field blanks samples, replicate samples (sequential samples), and laboratory surrogate and spike recoveries. During the land-use study, one equipment blank sample was analyzed for pesticides, and two equipment blank samples were analyzed for VOCs. Three field blank samples were analyzed for nutrients, major ions, and pesticides; four field blank samples were analyzed for VOCs; and two field blank samples were analyzed for DOC. Three replicate samples were analyzed for nutrients, major ions, DOC, pesticides, VOCs, radon-222, tritium, and environmental isotopes. Laboratory surrogate recoveries were performed on selected pesticides and VOCs for all ground-water samples. One spike sample was analyzed for pesticides and VOCs.

During the alluvial study-unit survey, one equipment blank sample was analyzed for nutrients, major ions, pesticides, and VOCs. Two field blank samples were analyzed for nutrients, major ions, DOC, pesticides, and VOCs. Two replicate samples were analyzed for common ions, nutrients, DOC, pesticides, and VOCs. Laboratory surrogate recoveries were performed on selected pesticides and VOCs for all ground-water samples. One spike sample was analyzed for pesticides and VOCs.

During the Iowa River alluvial aquifer study, one field blank sample was analyzed for nutrients, major ions, DOC, and pesticides. One replicate sample was

analyzed for nutrients, major ions, DOC, and pesticides.

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samples at four surface-water sampling sites for the analysis of pesticides.

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## **HYDROLOGIC AND BIOLOGIC DATA**

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**Table 6.** Method detection limits or minimum reporting levels and analytical techniques for nutrients, major ions, suspended sediment, radiochemicals, stable isotopes, and carbon analyzed in water samples, October 1996 through September 1998

[ mg/L, milligrams per liter; µg/L, micrograms per liter; pCi/L, picocuries per liter; g/kg, grams per kilogram; --, data not available; n/a, not applicable]

Constituent	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
<b>Nutrients and organics, dissolved (mg/L)</b>			
Ammonia as nitrogen, dissolved	7664-41-7	0.015	Fishman, 1993
Nitrite as nitrogen, dissolved	14797-65-0	0.01	do.
Ammonia plus organic nitrogen as nitrogen, dissolved	17778-88-0	0.2	do.
Nitrite plus nitrate as nitrogen, dissolved	--	0.05	do.
Ammonia plus organic nitrogen as nitrogen, total	17778-88-0	0.1	do.
Phosphorus, total	7723-14-0	0.01	do.
Orthophosphate, dissolved	14265-44-2	0.01	do.
Organic carbon, dissolved	--	0.1	Brenton and Arnett, 1993
Organic carbon, suspended	--	0.1	Wershaw and others, 1987
<b>Major ions, dissolved (mg/l, except as indicated)</b>			
Calcium	7440-70-2	0.02	Fishman, 1993
Magnesium	7439-95-4	0.01	do.
Sodium	7440-23-5	0.2	do.
Potassium	7440-09-7	0.1	do.
Chloride	16887-00-6	0.1	do.
Sulfate	14808-79-8	0.1	do.
Fluoride	16984-48-8	0.1	do.
Bromide	24959-67-9	0.01	do.
Silica	7631-86-9	0.01	do.
Iron (µg/L)	7439-89-6	3.0	do.
Manganese (µg/L)	7439-96-5	1.0	do.
<b>Suspended sediment</b>			
Suspended sediment			Guy, 1969
<b>Radiochemical and stable isotopes</b>			
Radon-222 (pCi/L)	14859-67-7	24	American Society for Testing Materials, 1996
Tritium (pCi/L)	10028-17-8	1.0	Ostlund and Dorsey, 1977
Oxygen-18/oxygen-16 (per mil)	n/a	n/a	Epstein and Mayeda, 1953
Deuterium/protium (per mil)	n/a	n/a	Coplen and others, 1991
<b>Carbon</b>			
Carbon, inorganic (g/kg)	n/a	0.1	Wershaw and others, 1987
Carbon, organic (g/kg)	n/a	0.1	do.
Carbon, total (g/kg)	n/a	0.1	do.

<sup>1</sup>MDL: Method detection limit—Minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero.

<sup>2</sup>MRL: Minimum reporting level—Smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).

**Table 7.** Method detection limits or minimum reporting levels and analytical techniques for selected pesticides analyzed in water samples, October 1996 through September 1998

[ µg/L, micrograms per liter; --, data not available; %, percent]

Constituent	Trade name	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
Pesticides, dissolved (µg/L, except as indicated)				
acetochlor	Harness, Surpass	34256-82-1	0.002	Zaugg and others, 1995
2,6-diethylaniline	--	579-66-8	.003	do.
alachlor	Lasso	15972-60-8	.002	do.
atrazine	Atrazine, AAtrex	1912-24-9	.001	do.
azinphos, methyl	Guthion	86-50-0	.001	do.
benfluralin	--	1861-40-1	.002	do.
butylate	Sutan, Genate	2008-41-5	.002	do.
carbaryl	Sevin, Savit	63-25-2	.003	do.
carbofuran	Furadan	1563-66-2	.003	do.
chlorpyrifos	Dursban, Lorsban	2921-88-2	.004	do.
cyanazine	Bladex	21725-46-2	.004	do.
DCPA	Dacthal	1861-32-1	.002	do.
deethylatrazine	--	6190-65-4	.002	do.
diazinon	several	333-41-5	.002	do.
dieldrin	--	60-57-1	.001	do.
disulfoton	Di-Syston	298-04-4	.017	do.
EPTC	Eradicane, Eptam	759-94-4	.002	do.
ethalfluralin	Sonalan, Curbit	55283-68-6	.004	do.
ethoprop	Mocap	13194-48-4	.003	do.
fonofos	Dyfonate	944-22-9	.003	do.
lindane	GammaSan	58-89-9	.004	do.
linuron	Lorox, Linex	330-55-2	.002	do.
malathion	several	121-75-5	.005	do.
metolachlor	Dual	51218-45-2	.002	do.
metribuzin	Sencor, Lexone	21087-64-9	.004	do.
molinate	--	2212-67-1	.004	do.
napropamide	Devrinol	15299-99-7	.003	do.
parathion	Parathion, 15% wettable	56-38-2	.004	do.
parathion, methyl	PennCap-M	298-00-0	.006	do.
pebulate	Tillam	1114-71-2	.004	do.
pendimethalin	Prowl	40487-42-1	.004	do.
phorate	Thimet	298-02-2	.002	do.
prometon	Pramitol	1610-18-0	.018	do.
propachlor	Ramrod	1918-16-7	.007	do.
propanil	--	709-98-8	.004	do.

**Table 7.** Method detection limits or minimum reporting levels and analytical techniques for selected pesticides analyzed in water samples, October 1996 through September 1998—Continued

Constituent	Trade name	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
<b>Pesticides, dissolved (µg/L, except as indicated)—Continued</b>				
propargite	Omite, Comite	2312–35–8	0.013	Zaugg and others, 1995
propyzamide	Kerb	23950–58–5	.003	do.
simazine	Princep	122–34–9	.005	do.
tebuthiuron	Spike	34014–18–1	.010	do.
terbacil	Sinbar	5902–51–2	.007	do.
terbufos	Counter	13071–79–9	.013	do.
thiobencarb	--	28249–77–6	.002	do.
triallate	--	2303–17–5	.001	do.
trifluralin	Treflan, Trilin, Trific	1582–09–8	.002	do.
alpha-HCH	--	319–84–6	.002	do.
cis-permethrin	--	54774–45–7	.005	do.
p, p'-DDE	--	72–55–9	.006	do.
diazinon-d10 (surrogate) (%)	--	100155–47–3	.1	do.
terbuthylazine (surrogate) (%)	--	5915–41–3	.1	do.
alpha-HCH-d6 (surrogate) (%)	--	--	.1	do.
<b>Pesticides, dissolved (µg/L, except as indicated)</b>				
2, 4, 5-T	--	93–76–5	.035	Werner and others, 1996
2, 4-D	Hedonal	94–75–7	.035	do.
2, 4-DB	Butyrac	94–82–6	.035	do.
Acifluorfen	Blazer	50594–66–6	.035	do.
Aldicarb	Temik	116–06–3	.016	do.
Aldicarb sulfone	Standak	1646–88–4	.016	do.
Aldicarb sulfoxide	--	1646–87–3	.021	do.
Bentazon	Basagran	25057–89–0	.014	do.
Bromacil	Hyvar X	314–40–9	.035	do.
Bromoxynil	Brominal	1689–84–5	.035	do.
3-hydroxycarbofuran	--	16655–82–6	.014	do.
Chloramben	Amiben	133–90–4	.011	do.
Chlorothalonil	Bravo	1897–45–6	.035	do.
Clopyralid	Lontrel	1702–17–6	.05	do.
Decthal monoacid	--	887–54–7	.017	do.
Dicamba	Banvel	1918–00–9	.035	do.
Dichlobenil	Casoron	1194–65–6	.02	do.
Dichlorprop	Hedonal	120–36–5	.032	do.
Dinoseb	Premerge	88–85–7	.035	do.
Diuron	Karmex	330–54–1	.02	do.
DNOC	--	534–52–1	.035	do.
Esfenvalerate	Pydrin	66230–04–4	.019	do.
Fenuron	Falisilvan	101–42–8	.013	do.

**Table 7.** Method detection limits or minimum reporting levels and analytical techniques for selected pesticides analyzed in water samples, October 1996 through September 1998—Continued

Constituent	Trade name	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
<b>Pesticides, dissolved (µg/L, except as indicated)—Continued</b>				
Fluometuron	Cotoran	2164–17–2	0.035	Werner and others, 1996
Linuron	Lorox	330–55–2	.018	do.
MCPA	Agroxone	94–74–6	.05	do.
MCPB	Tropotox	94–81–5	.035	do.
Methiocarb	Mesuroi	2032–65–7	.026	do.
Methomyl	Lannate	16752–77–5	.017	do.
1-naphthol	--	90–15–3	.007	do.
Neburon	Kloben	555–37–3	.015	do.
Norflurazon	Zorial	27314–13–2	.024	do.
Oryzalin	Dirimal	19044–88–3	.019	do.
Oxamyl	Vydate	23135–22–0	.018	do.
Picloram	Tordan	1918–02–1	.05	do.
Propham	Triherbide-IPC	122–42–9	.035	do.
Propoxur	Baygon	114–26–1	.035	do.
Silvex	--	93–72–1	.021	do.
Triclopyr	Garlon	55335–06–3	.05	do.
BDMC (surrogate) (%)	--	--/--	.1	do.

<sup>1</sup>MDL: Method detection limit—Minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero.

<sup>2</sup>MRL: Minimum reporting level—Smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).



**Table 8.** Method detection limits or minimum reporting levels and analytical techniques for volatile organic compounds analyzed in water samples, October 1996 through September 1998

[ µg/L, micrograms per liter; --, data not available; %, percent]

Constituent	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
Volatile organic compounds, total (µg/L, except as indicated)			
1, 1, 1, 2, 2, 2-Hexachloroethane	67-72-1	0.362	Rose and Schroeder, 1995
1, 1, 1, 2-Tetrachloroethane	630-20-6	.044	do.
1, 1, 1-Trichloroethane	71-55-6	.032	do.
1, 1, 2, 2-Tetrachloroethane	79-34-5	.132	do.
1, 1, 2-Trichloroethane	79-00-5	.064	do.
1, 1, 2-Trichloro-1, 2, 2-trifluoroethane	76-13-1	.032	do.
1, 1-Dichloroethane	75-34-3	.066	do.
1, 1-Dichloroethene	75-35-4	.044	do.
1, 1-Dichloropropene	563-58-6	.026	do.
(1, 1-Dimethylethyl)benzene	98-06-6	.096	do.
1, 2, 3, 4-Tetramethylbenzene	488-23-3	.23	do.
1, 2, 3, 5-Tetramethylbenzene	527-53-7	.24	do.
1, 2, 3-Trichlorobenzene	87-61-6	.266	do.
1, 2, 3-Trichloropropane	96-18-4	.07	do.
1, 2, 3-Trimethylbenzene	526-73-8	.124	do.
1, 2, 4-Trichlorobenzene	120-82-1	.188	do.
1, 2, 4-Trimethylbenzene	95-63-6	.056	do.
1, 2-Dibromo-3-chloropropane	96-12-8	.214	do.
1, 2-Dibromoethane	106-93-4	.036	do.
1, 2-Dichlorobenzene	95-50-1	.048	do.
1, 2-Dichloroethane	107-06-2	.134	do.
1, 2-Dichloroethane-d4 (surrogate) (%)	17060-07-0	.1	do.
1, 2-Dichloropropane	78-87-5	.068	do.
1, 2-Dimethylbenzene	95-47-6	.064	do.
1, 3, 5-Trimethylbenzene	108-67-8	.044	do.
1, 3-Dichlorobenzene	541-73-1	.054	do.
1, 3-Dichloropropane	142-28-9	.116	do.
1, 3 & 1, 4-Dimethylbenzene	106-42-3:10	.064	do.
1, 4-Bromofluorobenzene (surrogate) (%)	460-00-4	.1	do.
1, 4-Dichlorobenzene	106-46-7	.05	do.
2, 2-Dichloropropane	594-20-7	.078	do.
1-Chloro-2-methylbenzene	95-49-8	.042	do.
1-Chloro-4-methylbenzene	106-43-4	.056	do.
1-Isopropyl-4-methylbenzene	99-87-6	.11	do.
(1-Methylethyl)benzene	98-82-8	.032	do.

**Table 8.** Method detection limits or minimum reporting levels and analytical techniques for volatile organic compounds analyzed in water samples, October 1996 through September 1998—Continued

Constituent	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
Volatile organic compounds, total (µg/L, except as indicated)—Continued			
(1-Methylpropyl)benzene	135-98-8	0.048	Rose and Schroeder, 1995
2-Butanone	78-93-3	1.65	do.
2-Ethyltoluene	611-14-3	.1	do.
2-Hexanone	591-78-6	.746	do.
2-Propenal	107-02-8	1.43	do.
2-Propenenitrile	107-13-1	1.23	do.
3-Chloro-1-propene	107-05-1	.196	do.
4-Methyl-2-pentanone	108-01-1	.374	do.
Acetone	67-64-1	4.9	do.
Benzene	71-43-2	.032	do.
Bromobenzene	108-86-1	.036	do.
Bromochloromethane	74-97-5	.044	do.
Bromodichloromethane	75-27-4	.048	do.
Bromoethene	593-60-2	.1	do.
Bromomethane	74-83-9	.148	do.
Carbon disulfide	75-15-0	.08	do.
Chlorobenzene	108-90-7	.028	do.
Chloroethane	75-00-3	.12	do.
Chloroethene	75-01-4	.112	do.
Chloromethane	74-87-3	.254	do.
cis-1, 2-Dichloroethene	156-59-2	.038	do.
cis-1, 3-Dichloropropene	10061-01-5	.092	do.
Dibromochloromethane	124-48-1	.182	do.
Dibromomethane	74-95-3	.05	do.
Dichlorodifluoromethane	75-71-8	.096	do.
Dichloromethane	75-09-2	.382	do.
Diethyl ether	60-29-7	.17	do.
Diisopropyl ether	108-20-3	.098	do.
Ethylbenzene	100-42-5	.042	do.
Ethyl methacrylate	97-63-2	.278	do.
Ethyl tert-butyl ether	637-92-3	.054	do.
Ethylbenzene	100-41-4	.03	do.
Hexachlorobutadiene	87-68-3	.142	do.
Iodomethane	74-88-4	.076	do.
Methyl acrylate	96-33-3	.612	do.
Methyl acrylonitrile	126-98-7	.57	do.
Methylbenzene	108-88-3	.041	do.

**Table 8.** Method detection limits or minimum reporting levels and analytical techniques for volatile organic compounds analyzed in water samples, October 1996 through September 1998—Continued

Constituent	Chemical Abstract Service (CAS) registry number	MDL <sup>1</sup> or MRL <sup>2</sup>	Reference for analytical technique
Volatile organic compounds, total (µg/L, except as indicated)—Continued			
Methyl methacrylate	80–62–6	0.35	Rose and Schroeder, 1995
Methyl-tert-butyl ether	1634–04–4	.112	do.
Naphthalene	91–20–3	.25	do.
n-Butylbenzene	104–51–8	.186	do.
n-Propylbenzene	103–65–1	.042	do.
tert- Amyl methyl ether	994–05–8	.112	do.
Tetrachloroethene	127–18–4	.038	do.
Tetrachloromethane	56–23–5	.088	do.
Tetrahydrofuran	109–99–9	1.15	do.
Toluene-d8 (surrogate) (%)	2037–26–5	.1	do.
trans-1, 2-Dichloroethene	156–60–5	.032	do.
trans-1, 3-Dichloropropene	10061–02–6	.134	do.
trans-1, 4,-Dichloro-2-butene	110–57–6	.692	do.
Tribromomethane	75–25–2	.104	do.
Trichloroethene	79–01–6	.038	do.
Trichlorofluoromethane	75–69–4	.09	do.
Trichloromethane	67–66–3	.052	do.

<sup>1</sup>MDL: Method detection limit—Minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero.

<sup>2</sup>MRL: Minimum reporting level—Smallest measured concentration of a constituent that may be reliably reported by using a given analytical method (Timme, 1995).

**Table 9.** Minimum reporting levels and analytical techniques for organochlorine pesticides and total polychlorinated biphenyls analyzed in fish-tissue samples, October 1996 through September 1998

[MRL, minimum reporting level; µg/kg, micrograms per kilogram; %, percent; --, data not available]

Constituent	Chemical Abstract Service (CAS) registry number	MRL (µg/kg, except as noted)	Reference for analytical technique
<b>Organochlorine pesticides</b>			
2,4,6-Trichlorobiphenyl (surrogate) (%)	35693-92-6	0.1	Leiker and others (1995)
3,5-Dichlorobiphenyl (surrogate) (%)	34883-41-5	.1	do.
Aldrin	309-00-2	5	do.
Dacthal	1861-32-1	5	do.
Dieldrin	60-57-1	5	do.
Endrin	72-20-8	5	do.
Heptachlor	76-44-8	5	do.
Heptachlor epoxide	1024-57-3	5	do.
Hexachlorobenzene	118-74-1	5	do.
Lindane	58-89-9	5	do.
Lipids	--	.5	do.
Mirex	2385-85-5	5	do.
Oxychlordane	27304-13-8	5	do.
Pentachloroanisole	1825-21-4	5	do.
Toxaphene	8001-35-2	200	do.
alpha-HCH	319-84-6	5	do.
alpha-HCH-d6 (surrogate) (%)	--	.1	do.
beta-HCH	319-85-7	5	do.
cis-Chlordane	5103-71-9	5	do.
cis-Nonachlor	5103-73-1	5	do.
delta-HCH	319-86-8	5	do.
o,p'-DDD	53-19-0	5	do.
o,p'-DDE	3424-82-6	5	do.
o,p'-DDT	789-02-6	5	do.
o,p'-Methoxychlor	30667-99-3	5	do.
p,p'-DDD	72-54-8	5	do.
p,p'-DDE	72-55-9	5	do.
p,p'-DDT	50-29-3	5	do.
p,p'-Methoxychlor	72-43-5	5	do.
trans-Chlordane	5103-74-2	5	do.
trans-Nonachlor	39765-80-5	5	do.
Polychlorinated biphenyls	1336-36-3	50	do.

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998

[ft<sup>3</sup>/s, cubic feet per second; ft, feet;  $\mu$ S/cm, microsiemens per centimeter at 25 °C; °C, degrees Celsius; mg/L, milligrams per liter; %, percent; --, data not collected.  
Numbers in parentheses () are the U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance ( $\mu$ S/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>									
10-09-96	1043	19	6.91	417	7.9	10.5	10.5	9.3	87
11-06-96	1118	49	7.38	434	8.0	5.5	10.5	--	--
12-04-96	1011	165	8.51	450	7.8	0	-3.0	14.1	99
01-08-97	1103	321	9.28	407	7.3	0	-6.0	11.2	79
02-05-97	1105	133	8.22	451	7.3	0	.5	10.0	70
03-17-97	1305	1,160	11.69	253	7.2	8.0	.5	10.6	93
04-09-97	0858	707	10.56	372	7.9	2.0	4.0	13.0	97
05-05-97	1044	1,240	11.86	380	7.6	10.0	19.0	10.2	95
06-04-97	0954	158	8.43	428	7.9	20.0	20.0	8.1	92
06-22-97	1130	309	9.23	418	7.4	22.5	31.0	7.3	87
07-09-97	0824	93	7.74	437	7.7	20.5	18.0	7.8	90
08-05-97	0819	104	7.79	467	8.1	22.0	14.0	7.8	92
08-28-97	1230	54	7.24	396	7.9	22.0	--	9.6	114
09-04-97	0944	156	8.38	429	8.0	18.0	--	9.3	100
10-09-97	1228	79	7.72	429	8.0	17.5	15.0	10.2	110
11-06-97	1249	123	8.37	448	8.2	4.5	8.0	11.9	94
12-03-97	1249	81	7.89	430	8.1	2.0	.5	13.2	99
01-07-98	1247	85	8.04	451	8.0	0	2.0	13.4	95
02-19-98	1351	717	10.83	278	7.6	0	6.0	11.1	79
03-13-98	1223	275	9.30	456	7.9	.5	4.0	13.8	99
04-02-98	1443	1,890	12.70	329	7.5	6.5	9.0	10.1	85
05-06-98	1249	207	8.86	437	8.0	17.0	23.0	9.7	104
05-19-98	0940	210	8.92	443	7.8	22.0	32.0	7.6	90
05-27-98	1335	601	10.31	457	7.6	18.0	28.0	9.0	98
06-03-98	1450	334	9.54	451	7.9	16.0	15.0	9.1	96

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)—Continued</b>									
06-20-98	1030	1,240	11.95	275	7.3	19.0	25.0	6.8	76
07-08-98	1315	515	10.32	431	7.4	23.0	34.0	8.0	96
08-05-98	1231	80	7.85	406	7.9	21.5	22.0	8.6	101
09-02-98	1308	153	8.43	403	7.9	20.5	24.0	9.2	83
<b>05420720, East Fork Wapsipinicon River near Tripoli, IA (site a, fig. 1)</b>									
08-28-97	0915	20	--	579	7.8	19.5	--	7.9	89
05-19-98	1405	91	--	525	7.7	22.0	32.0	7.6	90
<b>05420900, Little Wapsipinicon River at Littleton, IA (site b, fig. 1)</b>									
08-20-97	1235	34	--	458	8.2	20.5	--	11.3	131
05-20-98	0947	119	--	514	7.8	19.0	23.0	8.0	89
<b>05421700, Buffalo Creek near Stone City, IA (site c, fig. 1)</b>									
08-14-97	1400	42	--	471	8.3	23.5	--	11.2	137
05-21-98	1523	163	--	533	8.2	20.5	25.0	9.2	106
<b>05421870, Mud Creek near Donahue, IA (site d, fig. 1)</b>									
08-14-97	0940	6.2	--	579	7.8	19.0	--	7.5	83
05-21-98	1023	87	--	616	7.9	20.5	23.0	8.1	92
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>									
10-15-96	1120	259	4.29	364	8.5	15.0	20.5	10.7	109
11-13-96	0946	687	5.39	513	8.2	.5	2.0	14.8	103
12-09-96	0924	928	5.85	460	8.2	0	-4.0	13.7	95
01-13-97	1025	1,710	7.02	314	7.2	0	-8.0	11.0	74
02-11-97	1017	1,210	6.31	483	7.4	0	-4.0	9.1	63
03-20-97	0920	4,800	10.00	242	7.6	3.0	7.0	11.8	89
04-07-97	1335	2,450	7.89	428	8.2	7.5	6.0	11.6	99
05-06-97	0937	3,900	9.27	478	7.7	14.0	19.0	10.6	104
06-02-97	1304	1,650	6.97	415	8.7	19.5	27.0	13.5	151
06-17-97	0935	1,240	6.40	378	8.4	22.0	28.0	8.7	102
06-26-97	0933	5,060	10.21	390	7.5	24.0	30.0	6.6	80
07-07-97	1306	2,050	7.48	469	8.3	23.0	28.0	9.4	112

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>									
08-06-97	1540	782	5.62	297	9.1	26.0	26.0	20.0	250
09-03-97	1210	682	5.42	401	8.7	21.5	--	12.3	140
10-09-97	0907	458	4.95	365	8.3	20.0	16.0	8.1	91
11-06-97	0915	1,190	6.38	500	8.3	5.0	4.0	11.8	94
12-04-97	0900	1,110	6.26	500	8.4	2.5	0	12.2	92
01-08-98	0843	1,780	7.12	530	8.1	2.0	0	13.0	97
02-20-98	0842	1,520	6.78	509	8.1	5.0	6.0	11.8	94
03-12-98	0850	3,200	8.67	268	8.2	0	-5.0	13.0	90
04-02-98	0900	9,150	12.39	318	7.2	9.0	6.5	8.8	78
05-06-98	0925	2,760	8.22	489	8.2	17.0	--	9.7	104
06-03-98	0915	4,440	9.71	440	7.7	20.0	--	7.8	88
06-17-98	1300	6,470	11.37	429	7.8	20.5	26.0	7.4	84
07-09-98	0855	6,490	11.32	384	7.3	25.0	30.5	7.6	94
08-06-98	0900	762	5.42	372	8.0	24.5	28.0	6.6	81
09-02-98	0915	2,680	7.92	379	7.9	22.5	25.0	7.7	91
<b>05449200, East Branch Iowa River at Belmond, IA (site e, fig. 1)</b>									
08-26-97	0925	20	--	627	8.1	21.5	--	7.9	93
05-20-98	0856	83	--	680	8.0	19.5	17.0	7.7	87
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>									
10-08-96	1010	61	3.66	700	8.2	10.0	4.5	10.5	97
11-05-96	0935	129	4.30	745	8.3	6.0	7.0	10.5	87
12-03-96	0928	269	5.24	733	8.2	0	-11.0	12.0	86
01-09-97	0950	228	4.99	703	7.8	0	-3.0	8.8	64
02-04-97	1015	171	4.63	568	7.6	0	-2.5	7.5	54
03-11-97	0950	1,580	10.00	250	7.4	.5	5.0	7.9	57
03-18-97	0856	1,220	9.22	340	7.7	0	3.0	11.1	79
03-25-97	0908	1,500	9.85	390	7.7	1.5	5.0	11.5	85
04-03-97	0847	511	6.49	602	8.0	8.0	15.0	11.1	98

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued									
04-09-97	0854	742	7.49	650	8.1	0.5	-7.0	13.7	97
04-15-97	0925	422	6.10	677	8.0	7.0	12.0	11.6	99
04-22-97	0944	336	5.68	689	8.0	11.0	7.0	10.2	96
04-29-97	0913	232	5.13	675	8.2	12.5	--	9.8	97
05-03-97	1046	1,050	8.65	661	7.7	7.0	11.0	11.0	94
05-13-97	0951	587	6.92	684	8.2	8.0	12.0	11.2	100
05-20-97	0853	458	6.35	675	8.1	12.0	--	9.8	93
05-28-97	0933	323	5.69	694	8.2	10.0	13.0	10.4	96
06-04-97	0921	228	5.16	691	8.1	18.0	21.0	8.1	89
06-10-97	0919	163	4.75	692	8.2	18.5	--	8.1	89
06-17-97	0858	122	4.46	690	8.1	20.0	18.0	7.5	86
06-23-97	1156	1,170	9.05	327	7.5	20.0	32.0	6.5	74
07-01-97	0905	919	7.85	673	7.7	20.0	34.0	7.8	90
07-15-97	0850	291	5.00	666	8.0	23.0	30.0	7.2	87
07-29-97	0900	333	5.17	683	7.7	21.0	19.0	7.1	82
08-11-97	1200	89	3.79	593	8.2	18.0	20.0	11.1	122
08-26-97	0837	60	3.63	633	8.0	20.5	30.0	7.4	86
09-11-97	1005	44	3.53	682	8.1	16.0	16.0	8.0	84
09-25-97	0852	60	3.67	693	8.1	14.0	--	8.7	89
10-08-97	0948	35	3.46	710	8.1	19.5	21.5	6.4	73
10-20-97	1134	52	3.62	687	8.2	8.5	6.0	11.9	105
11-05-97	0857	44	3.56	659	8.3	2.5	.5	13.5	102
11-17-97	1134	58	3.69	694	8.3	0	4.0	13.6	96
12-02-97	0908	45	3.59	638	8.2	1.5	1.5	12.8	95
01-06-98	0919	64	3.75	664	8.1	0	0	11.6	82
02-18-98	0924	892	7.82	316	7.8	0	4.0	11.3	82



**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>									
03-12-98	0926	135	4.33	747	7.9	0	-10.0	13.6	96
03-31-98	0922	906	7.91	665	8.0	7.0	9.0	10.1	88
05-05-98	0922	341	5.49	668	8.2	15.0	16.0	8.7	91
05-20-98	1223	226	4.89	681	7.9	19.0	24.0	9.2	103
06-02-98	0904	272	5.06	683	8.1	15.0	15.0	8.4	88
06-13-98	0928	599	6.58	688	8.0	16.5	26.0	8.2	88
06-23-98	0848	2,440	11.44	412	7.5	21.0	25.0	5.1	60
07-07-98	0900	613	6.66	669	7.6	20.5	32.0	6.8	79
08-04-98	0903	118	4.21	616	7.9	21.0	22.0	8.5	99
09-01-98	0944	88	3.95	708	8.1	18.5	17.5	7.3	81
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>									
09-10-98	1030	--	--	715	8.0	18.0	20.0	10.1	111
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>									
10-07-96	1215	9.2	2.34	550	8.3	14.0	13.0	11.9	118
11-04-96	1210	61	3.12	705	8.4	4.5	5.0	12.2	92
12-02-96	1155	211	4.22	722	8.3	1.0	-2.0	13.3	97
01-06-97	1133	550	5.65	365	7.5	0	--	12.4	87
02-03-97	1108	317	4.74	372	7.9	0	.5	11.3	79
03-10-97	1155	609	5.70	403	7.8	1.0	12.0	13.0	96
04-10-97	0904	236	4.35	718	8.4	4.0	4.5	12.8	100
05-15-97	1157	232	4.19	750	8.2	8.5	13.0	11.9	105
05-22-97	0930	152	3.75	648	8.1	14.5	18.0	12.2	123
06-05-97	0818	138	3.71	682	7.8	17.5	21.5	9.6	105
06-21-97	1302	1,810	8.78	311	7.6	20.5	29.0	7.2	83
07-10-97	0824	321	4.82	703	8.2	18.0	21.0	8.9	97
08-04-97	1017	33	2.89	544	8.0	25.5	29.0	8.8	111
08-19-97	0920	20	2.63	528	7.9	19.5	--	7.9	89
09-10-97	0830	7.6	2.47	515	8.1	16.5	19.0	8.4	89

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>									
10-07-97	1054	2.8	2.28	562	8.2	21.0	25.0	11.2	130
11-04-97	1120	11	2.59	545	8.5	3.0	3.0	15.8	122
12-01-97	1128	18	2.71	575	8.6	2.5	3.0	12.6	95
01-05-98	1154	30	3.06	591	8.2	0	2.0	12.7	90
02-17-98	1058	500	5.54	374	8.1	.5	4.5	11.9	86
03-11-98	0936	50	3.75	691	7.9	0	-5.0	15.8	109
03-30-98	1113	312	4.29	661	8.4	11.5	21.0	11.1	105
04-01-98	1033	549	5.40	682	8.2	6.0	4.0	11.6	98
05-04-98	1120	166	4.08	679	8.4	14.5	19.0	11.0	113
05-22-98	0656	114	3.75	656	7.9	16.5	13.0	8.1	84
05-29-98	1246	872	6.81	507	7.8	17.5	32.0	8.6	93
06-01-98	1318	510	5.76	704	8.1	16.0	--	10.2	108
06-12-98	1155	1,140	7.63	615	7.8	16.0	26.0	8.8	93
07-06-98	1213	670	6.08	604	8.1	20.0	35.0	8.8	100
08-03-98	1046	34	2.73	622	8.2	20.5	22.0	9.8	112
08-31-98	1102	36	2.71	677	8.1	22.0	26.5	9.2	109
<b>05452020, Salt Creek at Belle Plaine, IA (site g, fig. 1)</b>									
08-21-97	1245	32	--	573	8.1	20.5	--	10.3	117
05-18-98	0925	147	--	590	7.8	19.0	27.0	8.2	91
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>									
10-16-96	0939	288	5.27	461	8.5	17.0	19.0	9.7	103
11-14-96	0925	838	6.63	667	8.5	0	2.5	14.3	98
12-10-96	0935	3,040	10.56	619	8.2	0	6.5	14.6	103
01-14-97	1200	1,700	8.35	534	6.1	0	-7.0	8.7	64
02-13-97	0949	1,350	7.68	572	7.6	0	-5.0	8.6	60
03-19-97	0955	3,430	11.03	449	7.8	3.0	8.5	12.2	92
04-10-97	1557	2,570	9.84	633	8.6	5.5	1.0	13.0	105

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)—Continued</b>									
05-06-97	0914	4,940	13.25	604	8.2	12.5	14.0	10.0	96
06-05-97	1402	1,910	8.86	578	8.2	21.5	26.0	10.6	124
06-24-97	1000	5,040	13.37	396	7.4	25.0	31.0	5.7	71
07-10-97	1343	2,910	10.32	621	8.1	22.0	23.0	7.9	92
08-05-97	1334	833	6.84	606	8.5	25.8	26.0	11.2	140
09-08-97	1043	374	5.98	495	8.3	21.5	24.0	7.6	88
10-08-97	0937	337	5.63	455	8.2	21.0	16.5	7.1	82
11-05-97	0936	825	6.85	585	8.5	4.0	--	12.0	93
12-03-97	0930	654	6.56	551	8.4	3.0	.5	11.5	88
01-07-98	0846	1,330	7.92	513	8.6	1.5	7.0	12.7	93
02-19-98	0916	2,240	9.25	442	8.1	3.5	11.0	11.8	91
03-11-98	0855	1,490	8.01	270	8.2	0	-5.0	12.8	87
04-02-98	1355	9,240	16.41	402	7.5	8.0	--	9.8	85
05-08-98	0843	3,500	11.14	544	8.0	15.0	17.0	9.3	95
06-05-98	0900	3,150	10.63	598	8.1	16.0	--	8.9	92
06-13-98	0946	6,280	14.57	389	7.7	18.5	25.5	6.6	72
06-26-98	0922	17,500	18.54	382	7.4	25.0	32.0	5.2	65
07-07-98	0920	14,700	17.92	500	7.3	24.5	31.0	3.3	41
08-07-98	0900	1,690	8.37	508	8.0	22.0	23.0	6.8	81
09-04-98	0850	975	6.95	629	8.1	22.5	25.0	7.8	93
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>									
10-07-96	0948	3.2	1.38	475	7.9	13.5	14.0	10.2	100
11-12-96	0956	9.9	1.55	551	7.8	0	-5.0	13.2	89
12-02-96	0945	21	1.77	658	7.7	0	-3.5	13.1	91
01-06-97	0938	30	1.90	587	6.9	0	-5.0	13.2	91
02-04-97	0919	313	4.50	287	7.4	0	2.5	12.0	84
03-10-97	1025	345	5.13	249	7.5	3.0	10.5	11.5	87

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>									
04-08-97	1337	34	2.38	479	8.2	6.5	7.0	13.2	111
05-01-97	0914	235	4.31	429	8.1	8.0	11.0	9.5	83
05-08-97	0903	611	6.34	378	7.8	11.0	14.0	9.2	86
05-27-97	0947	660	6.62	384	7.1	9.5	14.5	8.8	81
06-03-97	1246	138	3.13	485	7.7	17.0	22.0	9.3	98
07-08-97	1210	38	2.13	522	7.8	22.5	31.0	8.8	104
08-07-97	1425	7.7	1.59	464	8.0	24.5	31.0	12.9	157
08-11-97	0908	5.9	1.63	498	7.6	19.0	--	8.1	89
09-02-97	1545	11	1.68	428	7.8	25.5	28.5	9.9	123
10-07-97	1350	3.2	1.51	549	7.9	22.0	31.0	11.1	130
11-04-97	1243	59	2.49	521	8.4	4.0	--	12.3	96
12-02-97	1223	28	2.09	528	8.5	4.5	--	12.8	101
01-06-98	1240	263	4.36	485	8.0	4.0	--	11.7	91
02-18-98	1235	150	3.45	498	8.3	5.0	8.0	12.8	104
03-10-98	1310	249	4.03	468	7.9	.5	-5.0	12.9	90
03-31-98	1245	1,610	10.74	269	7.0	12.0	--	7.0	68
05-05-98	1343	200	3.73	486	7.6	16.5	31.0	9.9	104
05-18-98	0825	142	3.49	792	7.8	17.5	32.0	8.1	87
06-02-98	1325	169	3.57	508	7.7	17.5	--	8.7	94
06-10-98	0826	219	3.86	494	7.6	14.5	17.0	8.7	88
06-30-98	1239	744	7.07	363	7.2	19.5	25.5	6.9	78
07-10-98	0745	156	3.60	519	7.3	21.5	28.5	8.3	97
08-05-98	0810	44	2.44	505	7.8	22.0	24.5	6.4	76
09-01-98	1300	104	3.96	503	7.7	21.0	28.0	8.0	92
<b>05455500, English River near Kalona, IA (site h, fig. 1)</b>									
08-11-97	1417	37	--	473	7.8	20.0	--	7.8	87
05-18-98	1430	469	--	436	7.8	22.0	33.0	7.7	91

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>									
10-07-96	0825	14	2.77	--	7.7	14.5	10.5	8.3	--
11-04-96	0810	45	3.20	--	7.8	4.0	1.5	13.3	--
12-06-96	0900	--	--	480	8.0	0	--	14.2	--
01-02-97	0955	30	3.10	--	7.5	.5	10.0	14.1	--
02-06-97	0825	90	4.70	--	7.3	0	-1.5	8.4	--
03-20-97	1015	120	3.95	--	7.8	6.0	--	12.7	--
04-10-97	0850	100	7.72	--	7.9	6.0	1.5	12.9	--
05-06-97	1515	510	5.12	--	7.9	17.0	21.0	9.7	--
06-05-97	0855	260	4.54	--	7.7	18.0	21.0	10.5	--
07-14-97	0920	60	3.50	--	8.2	26.0	24.0	8.4	--
09-04-97	0845	19	2.70	--	8.0	17.5	13.0	9.0	--
10-07-97	0935	11	2.61	--	7.9	19.5	20.0	9.0	--
11-06-97	1410	190	--	--	8.3	5.5	7.0	16.1	--
12-01-97	0935	130	3.75	--	8.4	5.5	1.5	13.8	--
01-08-98	0915	600	5.96	--	8.5	3.0	-6.0	12.4	--
02-05-98	0910	220	4.77	--	8.0	.5	-2.0	14.1	--
03-03-98	0835	510	--	--	8.1	3.0	-2.0	12.8	--
04-07-98	0850	635	6.47	--	7.8	11.5	10.0	10.6	--
05-05-98	1415	--	--	--	7.9	--	24.0	9.7	--
06-02-98	0855	580	5.49	--	8.1	18.5	--	8.9	--
07-08-98	1000	650	5.70	--	7.6	24.0	25.0	7.1	--
08-04-98	0900	95	3.35	--	8.1	23.5	--	8.2	--
<b>05456510, Turtle Creek at Austin, MN (site j, fig. 1)</b>									
08-27-97	0840	74	--	683	7.5	20.5	--	8.1	93
05-19-98	0901	100	--	685	7.7	21.0	26.0	7.2	84

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>									
10-17-96	1010	150	1.98	--	8.0	16.0	14.5	7.8	--
11-06-96	0915	--	--	--	8.1	5.5	10.0	11.5	--
12-19-96	1015	240	2.21	--	8.0	0	-18.0	14.0	--
01-21-97	1130	450	2.75	--	7.6	0	1.5	11.6	--
02-17-97	1120	350	2.50	--	7.7	0	1.5	11.9	--
03-05-97	0805	490	2.62	--	8.0	0	--	13.2	--
04-22-97	0950	880	3.21	--	8.3	11.5	10.0	12.5	--
05-01-97	0900	930	3.28	--	8.2	8.5	4.5	12.0	--
07-17-97	1115	1,190	3.65	--	8.1	24.5	26.5	8.2	--
09-16-97	0920	280	2.28	--	8.4	19.0	21.0	8.7	--
10-23-97	0840	380	2.45	--	8.4	7.0	4.5	12.0	--
11-13-97	1055	240	2.21	--	8.8	1.5	.5	18.7	--
12-11-97	1020	85	1.86	--	8.7	1.0	-4.0	13.3	--
01-28-98	1010	150	2.03	--	8.2	.5	2.0	12.4	--
02-17-98	1010	170	2.02	--	8.2	1.0	2.0	13.0	--
03-26-98	0730	940	3.29	--	8.4	7.0	16.0	12.5	--
04-09-98	0830	2,070	4.80	--	--	--	--	--	--
06-09-98	1020	600	2.78	--	8.5	15.0	13.0	9.5	--
07-09-98	1015	1,450	4.02	--	8.0	23.0	27.0	8.1	--
08-11-98	1035	390	2.46	--	8.6	23.5	24.0	9.6	--
09-14-98	1230	260	2.25	--	8.5	21.5	--	9.6	--
<b>05457950, Little Cedar River near Floyd, IA (site l, fig. 1)</b>									
08-27-97	1400	36	--	457	8.0	21.0	--	10.6	123
05-18-98	1346	134	--	547	8.0	21.0	30.5	8.2	96

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>									
08-25-97	1500	28	--	582	8.1	22.0	--	9.7	115
05-21-98	1221	73	--	624	8.0	18.0	25.0	9.2	100
09-09-98	0957	--	--	621	8.1	15.0	21.0	10.1	103
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>									
10-17-96	0840	9.5	5.35	--	8.0	16.0	22.0	8.7	--
11-06-96	0815	300	6.35	--	8.1	6.0	10.0	12.0	--
12-19-96	0910	850	8.30	--	8.1	0	-18.0	14.6	--
01-21-97	0955	380	6.83	--	7.5	0	1.5	7.5	--
02-17-97	0930	300	7.02	--	7.5	0	25.0	8.7	--
03-05-97	1300	1,900	10.43	--	7.5	0	--	9.5	--
05-01-97	0755	1,050	8.40	--	7.9	7.5	4.5	13.3	--
07-17-97	0950	625	7.12	--	8.4	25.0	23.9	8.3	--
09-16-97	0805	240	--	--	8.4	19.0	18.0	8.7	--
10-22-97	1100	220	5.66	--	8.4	6.5	1.5	12.1	--
11-13-97	0920	190	5.50	--	8.6	2.0	.5	16.3	--
12-11-97	1120	250	5.74	--	8.7	1.5	-4.0	13.1	--
01-28-98	1125	285	5.92	--	8.2	.5	2.0	11.9	--
02-17-98	0900	520	6.90	--	8.1	1.5	3.0	13.4	--
03-26-98	1220	1,150	8.50	--	8.2	8.5	21.0	12.2	--
04-09-98	1045	1,520	9.26	--	8.3	8.0	3.0	10.7	--
06-09-98	0855	1,250	8.88	--	8.6	15.0	13.0	9.6	--
07-09-98	0900	1,350	8.75	--	8.0	23.5	27.0	8.0	--
08-11-98	0850	860	7.84	--	8.3	22.5	21.0	8.2	--
09-14-98	1050	230	5.74	--	8.4	20.5	--	8.8	--
<b>05459300, Winnebago River near Fertile, IA (site o, fig. 1)</b>									
08-26-97	1250	75	--	593	8.4	23.0	--	13.8	168
05-19-98	1308	234	--	698	8.0	22.0	32.0	8.9	106

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
05461390, Flood Creek near Powersville, IA (site 7, fig. 1)									
10-23-96	1107	0.52	2.17	396	7.9	6.0	6.0	9.6	81
12-11-96	1150	17	2.69	448	8.3	.5	5.0	13.6	98
01-14-97	0950	36	2.96	505	7.5	0	-12.0	9.4	65
02-19-97	1050	237	4.94	403	7.2	0	-2.5	12.2	86
03-18-97	1018	293	5.30	209	7.8	0	-2.0	12.7	89
04-09-97	1446	146	4.17	536	8.1	5.0	6.0	11.6	93
05-03-97	1053	388	5.45	489	8.0	7.5	12.5	10.3	89
06-04-97	1310	47	3.09	503	8.0	16.5	29.0	10.3	108
07-09-97	1151	58	3.17	525	7.9	16.0	20.0	9.0	94
08-04-97	1613	62	3.24	533	7.8	21.0	30.0	8.3	96
08-25-97	1130	22	2.66	488	7.9	15.5	--	11.2	116
09-04-97	1248	15	2.54	492	8.1	15.0	25.0	11.5	117
10-09-97	0823	3.3	2.28	456	7.8	14.5	10.0	7.6	77
11-06-97	0855	4.7	2.34	491	8.3	4.5	4.0	11.5	91
12-03-97	0852	2.0	2.25	452	8.3	2.5	1.0	12.1	92
01-07-98	0902	.07	2.09	443	8.0	0	-.5	12.1	85
02-19-98	0948	60	3.14	320	8.0	0	6.5	12.9	92
03-13-98	0850	8.1	2.95	519	8.0	0	-4.0	12.4	88
04-02-98	0843	388	6.00	489	8.0	5.0	9.0	11.7	95
05-06-98	0838	74	3.34	532	8.0	11.5	21.0	9.8	94
05-18-98	1004	49	3.02	519	8.0	15.0	28.0	8.7	89
06-03-98	0906	116	3.73	551	7.9	11.5	5.5	9.5	91
07-08-98	0848	108	3.95	540	7.6	15.0	32.0	8.9	91
08-05-98	0837	44	2.95	468	7.8	15.5	21.5	9.3	96
09-02-98	0842	30	2.69	509	7.9	12.0	24.0	9.3	90



**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05462770, Beaver Creek near Parkersburg, IA (site p, fig. 1)</b>									
08-19-97	1235	41	--	611	8.1	18.5	--	9.6	106
05-21-98	0848	98	--	639	8.0	17.0	18.3	9.0	96
<b>05463510, Black Hawk Creek at Waterloo, IA (site q, fig. 1)</b>									
08-20-97	0910	42	--	537	8.0	--	18.5	9.1	105
05-20-98	1253	219	--	571	7.9	19.0	28.0	8.4	94
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>									
10-15-96	1120	924	5.45	528	8.5	15.0	19.0	12.6	128
11-12-96	1103	1,460	5.98	614	8.3	.5	5.8	14.9	105
12-12-96	1340	2,730	6.81	613	8.3	1.0	3.0	14.5	105
01-15-97	0855	--	7.69	654	7.7	0	-5.0	12.3	88
02-10-97	1015	--	7.12	582	7.9	0	-1.0	12.0	84
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>									
10-10-96	1047	25	2.20	580	8.2	9.5	7.0	13.9	124
11-07-96	1018	116	2.78	555	8.2	5.5	5.5	11.7	96
12-05-96	0959	123	2.74	588	8.0	0	0	12.9	92
01-13-97	1205	100	2.57	631	7.5	0	-10.0	9.3	65
02-06-97	0923	111	2.57	396	7.5	0	-1.5	9.4	65
03-12-97	1035	217	3.11	493	7.9	5.5	6.0	12.1	98
03-17-97	0945	160	2.90	514	8.1	1.5	10.0	12.6	93
03-24-97	1026	124	2.76	561	8.2	5.0	3.0	11.3	92
04-02-97	1026	124	2.77	552	8.4	10.5	18.0	11.7	108
04-08-97	1030	180	3.01	552	8.2	3.5	0	13.2	101
04-14-97	1235	195	3.08	538	8.2	13.0	10.0	12.8	124
04-21-97	1028	165	2.97	554	8.2	10.0	15.0	10.8	100
04-28-97	1026	129	2.83	558	8.2	12.0	17.0	12.5	120
05-05-97	1015	435	3.91	560	8.1	12.5	18.0	10.0	97
05-12-97	1022	305	3.48	565	8.2	10.5	11.0	10.4	97
05-19-97	1033	209	3.16	568	8.3	15.5	13.0	9.5	98

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>									
05-27-97	0936	211	3.17	543	8.0	10.5	17.0	11.3	104
06-03-97	1116	180	3.05	580	8.1	19.5	25.0	8.8	99
06-09-97	0946	170	3.01	588	8.1	18.0	20.0	9.4	101
06-16-97	0943	209	3.16	497	7.9	21.0	21.0	7.8	91
06-24-97	0951	694	4.38	545	7.6	21.5	28.0	7.2	84
06-30-97	1022	397	3.64	555	8.0	21.5	30.0	8.2	96
07-14-97	0944	172	3.02	558	8.1	24.0	31.0	8.3	101
07-28-97	0928	80	2.61	603	8.1	24.0	26.0	8.1	99
08-12-97	0916	54	2.47	557	7.9	18.0	23.0	8.5	92
08-21-97	0840	33	2.36	587	7.9	17.5	--	9.4	101
08-25-97	1000	65	2.53	434	7.8	20.5	20.0	7.9	90
09-09-97	0945	65	2.53	519	8.1	19.0	19.5	8.9	99
09-24-97	0940	80	2.61	537	8.0	13.5	--	10.5	104
10-10-97	0938	152	2.91	517	8.1	13.5	7.0	9.3	91
10-21-97	0854	150	2.90	597	8.2	7.5	4.0	11.0	94
11-07-97	0919	103	2.75	592	8.3	6.0	5.0	12.3	100
11-18-97	0857	188	3.08	585	8.6	0	-5.0	13.3	93
12-04-97	0919	141	2.85	585	8.4	2.0	-4.0	13.5	101
01-08-98	0910	159	2.91	567	8.5	1.0	-1.0	12.1	89
02-20-98	0941	299	3.49	557	8.4	4.0	4.0	12.1	95
03-18-98	0918	261	3.31	523	8.0	1.0	--	12.0	87
04-01-98	0945	2,610	8.56	388	7.0	7.0	4.0	10.0	87
05-07-98	0919	349	3.64	549	8.1	13.0	17.0	9.8	97
05-18-98	1327	237	3.26	569	8.0	21.5	30.5	8.1	94
06-04-98	0933	372	3.66	566	8.1	13.0	15.0	9.8	96
06-10-98	1215	1,030	5.24	458	7.7	15.5	26.0	8.8	91

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>									
06-12-98	1238	5,790	13.31	145	6.7	19.0	24.0	6.5	73
06-22-98	1415	3,440	9.84	284	7.4	21.0	32.0	6.4	74
07-09-98	0924	746	4.59	557	7.6	21.0	38.0	8.1	93
08-06-98	0855	334	3.46	427	7.9	20.0	20.0	8.9	101
09-03-98	0956	88	2.61	599	8.1	19.5	19.5	9.3	106
<b>05464935, Cedar River at Nichols, IA<sup>1</sup> (site 10a, fig. 1)</b>									
10-29-96	1030	2,080	5.66	533	8.1	11.5	--	10.8	104
11-13-96	1013	2,460	5.95	644	8.4	2.0	1.0	13.4	96
12-05-96	1030	3,640	6.78	530	8.3	0	2.0	13.4	95
01-22-97	0950	7,780	9.12	688	7.7	0	2.5	10.6	74
02-03-97	0938	7,000	8.73	679	7.8	0	--	10.1	70
03-13-97	0950	11,800	10.68	403	7.7	4.5	7.0	10.4	82
04-07-97	0921	9,460	9.83	521	8.3	7.5	-2.0	10.6	90
05-07-97	0933	9,270	9.74	545	7.9	14.5	14.0	10.2	102
06-02-97	0838	5,190	7.90	535	8.3	18.0	25.0	12.1	131
06-17-97	1418	4,590	7.58	462	8.6	25.5	28.0	10.9	137
07-07-97	0902	7,430	8.95	596	8.2	22.0	22.0	8.7	101
08-06-97	1110	4,030	7.24	573	8.4	24.5	23.0	10.0	121
09-03-97	0834	2,600	6.23	427	8.6	22.5	16.0	8.0	93
10-09-97	1232	1,700	5.50	523	8.9	20.5	18.0	14.8	168
11-06-97	1302	3,060	6.48	652	8.6	5.5	--	12.6	102
12-04-97	1230	2,680	6.21	633	8.9	3.0	--	14.5	111
01-08-98	1233	4,220	7.25	617	8.2	1.0	0	14.1	103
02-20-98	1156	5,400	8.11	601	8.2	5.5	9.0	11.7	95
03-12-98	1200	5,860	8.12	603	8.2	0	-5.0	13.9	96
04-03-98	0851	25,700	13.96	423	7.4	9.0	7.0	9.5	84

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05464935, Cedar River at Nichols, IA<sup>1</sup> (site 10a, fig. 1)—Continued</b>									
05-07-98	0827	8,600	9.33	584	8.2	17.0	17.5	8.6	93
06-04-98	0900	8,530	9.29	594	7.5	18.5	--	8.4	92
07-06-98	0847	26,800	14.15	487	7.7	22.5	26.5	6.4	76
08-04-98	1300	3,440	6.76	463	8.5	25.5	28.5	9.0	112
09-03-98	0840	5,440	7.92	557	8.4	23.5	26.0	9.6	116
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>									
10-10-96	1015	1,300	4.94	539	8.9	12.0	13.5	10.8	139
10-29-96	0855	1,910	5.51	543	8.4	12.0	11.5	10.1	96
<b>05465310, Long Creek near Columbus Junction, IA (site r, fig. 1)</b>									
08-12-97	1430	6.5	--	442	8.0	22.0	--	10.1	118
05-20-98	1442	92	--	550	8.0	20.5	18.0	7.9	89
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>									
10-08-96	1155	1,740	9.92	492	8.9	14.5	12.0	12.4	125
11-06-96	1038	3,630	11.11	591	8.4	7.5	19.5	12.9	110
12-03-96	1040	5,490	11.97	658	8.4	0	-2.0	13.5	94
01-07-97	1115	7,610	12.86	641	8.1	0	-10.0	13.4	92
02-05-97	1030	11,900	14.47	560	7.6	0	-1.0	11.4	78
03-11-97	1220	18,500	16.69	405	7.9	4.0	16.0	11.3	88
03-20-97	0918	28,700	19.23	332	8.2	3.5	7.0	12.4	95
03-27-97	0941	21,700	17.53	363	7.9	6.0	17.0	13.1	108
03-31-97	0936	24,400	18.30	402	7.8	8.0	12.0	10.6	90
04-10-97	0922	12,500	14.98	524	8.2	7.0	3.0	11.5	96
04-16-97	0931	13,100	15.14	559	8.2	7.5	2.0	10.8	92
04-23-97	0945	10,700	14.32	578	8.6	11.5	12.0	11.7	110
04-30-97	0956	8,110	13.35	469	8.6	16.0	15.0	10.5	110
05-07-97	0920	19,700	16.97	530	8.3	14.5	15.0	10.2	102
05-14-97	0955	17,800	16.46	560	8.2	14.5	12.0	10.3	104

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued									
05-21-97	1028	12,200	14.76	514	7.9	16.5	20.0	8.2	85
05-29-97	1049	13,000	15.02	518	8.2	14.0	15.0	10.9	108
06-05-97	0940	9,820	13.89	492	8.5	20.0	22.0	12.0	135
06-12-97	0906	8,360	13.38	481	8.1	22.0	22.0	7.8	92
06-19-97	0908	7,740	13.08	481	8.0	25.0	29.5	7.0	87
06-25-97	0955	14,900	15.59	522	8.0	27.0	30.0	6.4	82
07-02-97	0912	19,400	16.89	482	7.8	26.5	31.0	7.1	91
07-16-97	0941	8,660	13.42	552	8.3	27.0	33.0	8.9	114
07-31-97	0927	6,470	12.46	545	8.3	25.0	28.0	9.7	120
08-13-97	0918	4,130	11.32	484	8.5	22.5	24.0	9.4	111
08-28-97	0919	3,650	10.99	476	8.4	24.0	26.0	8.1	98
09-05-97	0906	4,270	11.27	419	8.2	21.0	--	8.3	94
09-23-97	0936	3,420	10.73	468	8.4	17.5	16.0	8.7	92
10-06-97	1050	2,500	10.17	475	8.7	21.0	31.5	11.8	135
10-22-97	0951	5,310	11.82	581	8.5	9.0	3.0	11.9	104
11-03-97	0953	5,750	12.02	595	8.4	6.0	3.5	12.2	101
11-19-97	0935	3,860	10.93	612	8.5	1.5	1.0	12.5	90
12-01-97	0928	3,690	10.84	615	8.9	5.5	4.0	12.7	103
01-05-98	0938	6,500	12.35	651	8.3	3.0	4.0	11.6	88
02-17-98	0936	6,920	12.98	568	8.3	4.0	8.5	11.9	95
03-09-98	1000	15,800	16.34	537	8.3	2.5	3.0	12.2	91
03-30-98	0905	16,000	16.40	565	8.1	14.5	--	9.9	101
04-04-98	1020	43,100	22.05	422	7.8	8.5	14.0	9.0	78
05-04-98	0909	15,400	16.23	583	8.2	14.5	22.0	9.9	100
05-27-98	1148	13,400	16.19	500	8.4	20.0	29.0	11.6	131
06-01-98	0913	16,700	16.62	524	7.9	22.0	--	7.7	91

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>									
06-19-98	1002	37,400	21.07	489	7.7	20.0	23.0	7.5	84
07-02-98	1049	48,400	22.87	467	7.4	25.0	30.5	5.3	65
08-03-98	0925	10,700	14.59	470	8.1	25.0	29.5	6.8	86
08-31-98	0940	12,300	15.19	515	7.8	25.0	26.0	7.1	88
<b>05469980, South Skunk River near Story City, IA (site s, fig. 1)</b>									
08-18-97	1430	15	--	645	8.3	21.0	--	12.7	147
05-21-98	0743	105	--	721	8.2	18.0	15.0	8.0	87
<b>05471120, East Branch Indian Creek near Iowa Center, IA (site t, fig. 1)</b>									
08-18-97	1057	3.9	--	533	7.9	20.5	--	9.4	107
05-21-98	1137	96	--	650	8.2	19.5	24.0	9.1	103
<b>05473060, Crooked Creek at Coppock, IA (site u, fig. 1)</b>									
08-12-97	1002	13	--	661	7.7	20.5	--	4.9	56
05-19-98	0946	160	--	556	7.9	21.5	31.0	7.6	89
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>									
10-07-96	1020	4.1	2.73	--	8.4	15.5	15.0	10.6	--
11-04-96	1100	125	3.09	--	7.5	5.0	4.5	11.4	--
12-06-96	1045	--	--	733	8.4	.5	23.0	14.6	--
01-02-97	1305	10	2.82	--	7.9	1.0	13.0	15.6	--
02-06-97	1115	220	5.35	--	7.4	0	-1.5	11.7	--
03-20-97	1220	75	3.55	--	8.0	8.5	--	12.5	--
04-10-97	1130	57	3.23	--	8.4	6.5	1.5	13.3	--
05-06-97	1345	270	4.53	--	8.0	16.5	24.0	9.8	--
06-05-97	1130	115	3.69	--	8.0	19.5	24.0	11.5	--
07-14-97	1230	35	3.22	--	8.9	29.0	29.0	10.7	--
08-11-97	1405	11	2.90	--	8.3	21.0	21.0	8.1	--
08-13-97	1355	7.9	2.80	569	8.3	25.5	--	11.2	139
09-04-97	1110	12	2.93	--	8.2	19.5	12.5	8.5	--
10-07-97	1155	.57	2.52	--	8.2	23.0	28.0	9.1	--
11-06-97	1125	115	3.71	--	8.3	6.0	4.5	12.6	--

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)—Continued</b>									
12-01-97	1145	35	4.17	--	8.1	6.5	1.5	13.6	--
01-15-98	1155	--	--	--	8.3	.5	-5.0	13.7	--
02-05-98	1140	260	4.86	--	8.1	.5	-1.0	14.3	--
03-03-98	1040	330	4.78	--	8.2	3.0	-1.0	13.1	--
04-07-98	1100	900	6.62	--	7.9	12.0	16.0	7.9	--
05-05-98	1300	470	5.33	--	8.0	16.5	24.0	9.9	--
05-19-98	1449	164	--	514	8.0	24.0	32.0	7.9	96
06-02-98	1140	270	4.53	--	8.1	21.0	--	8.6	--
07-08-98	1210	4,520	14.94	--	7.2	25.0	30.0	6.3	--
08-04-98	1205	15	3.25	--	8.8	26.0	--	11.6	--
<b>05473550, Big Creek near Lowell, IA (site w, fig. 1)</b>									
08-13-97	0945	7.1	--	1220	7.8	22.0	28.0	5.6	65
05-20-98	0838	59	--	611	8.0	22.0	15.0	6.8	79
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>									
10-09-96	0940	253	1.70	371	9.3	13.5	9.0	11.8	117
11-07-96	0909	784	2.39	622	8.2	7.5	7.0	11.4	97
12-04-96	0933	1,630	3.24	715	8.2	0	-2.0	13.8	95
01-08-97	0930	1,160	2.78	732	8.2	0	-4.0	15.2	104
02-06-97	0857	3,670	5.16	426	7.6	.0	-2.0	11.5	79
03-12-97	0930	470	5.95	484	8.0	6.5	15.0	11.9	98
04-08-97	0840	1,560	3.15	637	8.7	9.0	4.0	13.3	116
05-13-97	1110	4,710	5.82	552	7.9	14.5	19.0	9.3	94
05-28-97	1205	5,910	6.75	355	7.6	12.5	14.0	9.1	87
06-03-97	0814	2,960	4.34	581	7.9	18.0	25.0	9.7	105
06-26-97	1515	4,800	5.89	502	7.8	26.5	32.0	6.8	86
07-08-97	0804	2,040	3.59	601	8.0	23.5	24.0	7.8	94
08-07-97	0930	558	2.14	478	8.4	23.0	23.0	12.2	143
09-02-97	1050	631	2.25	490	8.0	26.0	30.0	8.0	100

**Table 10.** Physical properties determined onsite at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Discharge (ft <sup>3</sup> /s) (00061)	Gage height (ft) (00065)	Specific conductance (μS/cm) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Air temperature (°C) (00020)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)—Continued</b>									
10-07-97	0903	194	1.63	481	8.0	21.5	25.0	5.6	64
11-04-97	0822	403	2.00	472	8.2	6.0	--	11.5	94
12-02-97	0835	1,490	3.05	536	8.6	6.0	7.0	11.7	95
01-06-98	0830	8,100	8.60	402	8.0	3.5	6.5	12.0	92
02-18-98	0835	2,930	4.47	508	8.2	4.5	8.0	11.8	94
03-10-98	0840	12,200	11.16	322	7.9	1.0	-5.0	12.0	85
03-31-98	0824	19,600	15.09	297	7.8	14.0	--	9.0	91
05-05-98	0830	5,180	6.30	505	7.8	14.5	22.0	9.6	--
05-26-98	1200	15,700	13.16	327	7.3	17.0	24.0	7.5	79
06-02-98	0820	5,720	6.85	498	7.8	21.0	--	7.6	88
06-18-98	1044	14,000	12.22	385	7.6	20.5	36.0	8.5	97
07-08-98	0930	15,400	13.01	375	7.3	25.0	28.5	6.4	79
08-04-98	0810	1,370	2.97	597	8.2	25.0	25.0	7.8	96
09-01-98	0815	3,960	5.21	250	7.5	23.0	25.5	7.0	83
<b>424539093372001, Surface-water tile drain upstream from Iowa River near Rowan, IA (site x, fig. 1)</b>									
01-09-97	1020	--	--	703	7.8	0	-3.0	8.8	64
04-22-97	1004	--	--	689	8.0	11.0	7.0	10.2	96
07-29-97	0830	--	--	--	--	--	19.0	--	--
05-05-98	0830	--	--	668	8.2	15.0	16.0	8.7	91

<sup>1</sup>Gaging station located at Cedar River near Conesville, IA (site 10b, fig. 1).



**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998

[mg/L, milligrams per liter; col/100 mL, number of colonies per 100 milliliters; µg/L, micrograms per liter; --, data not collected; K, nonideal colony count; >, greater than indicated value. Numbers in parentheses () are the U.S. Geological Survey Water Data Storage and Retrieval System parameter code]

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>										
10-09-96	1043	regular	145	177	0	240	510	--	--	--
11-06-96	1118	do.	142	173	0	1,400	500	--	--	--
12-04-96	1011	do.	132	161	0	K66	K150	--	--	--
01-08-97	1103	do.	117	143	0	K1,600	K26,000	--	--	--
02-05-97	1105	do.	145	177	0	K38	K80	--	--	--
03-17-97	1305	do.	81	99	0	K15	590	--	--	--
04-09-97	0858	do.	104	127	0	--	--	--	--	--
05-05-97	1044	do.	87	106	0	--	--	--	--	--
06-04-97	0954	do.	130	159	0	--	--	--	--	--
06-22-97	1130	do.	114	139	0	--	--	--	--	--
07-09-97	0824	do.	133	162	0	--	--	--	--	--
08-05-97	0819	do.	136	166	0	--	--	--	--	--
08-28-97	1230	do.	104	120	0	--	--	--	--	--
09-04-97	0944	do.	139	170	0	--	--	--	--	--
10-09-97	1228	do.	145	176	0	--	--	--	--	--
11-06-97	1249	do.	143	174	0	--	--	--	--	--
12-03-97	1249	do.	138	168	0	--	--	--	--	--
01-07-98	1247	do.	131	160	0	--	--	--	--	--
02-19-98	1351	do.	76	93	0	--	--	--	--	--
03-13-98	1223	do.	150	183	0	--	--	--	--	--
04-02-98	1443	do.	68	83	0	--	--	--	--	--
05-06-98	1249	do.	120	146	0	--	--	--	--	--
05-19-98	0940	do.	117	143	0	--	--	--	--	--
05-27-98	1335	do.	118	144	0	--	--	--	--	--
06-03-98	1450	do.	120	146	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)—Continued</b>										
06-20-98	1030	regular	68	83	0	--	--	--	--	--
07-08-98	1315	do.	102	124	0	--	--	--	--	--
08-05-98	1231	do.	139	170	0	--	--	--	--	--
09-02-98	1308	do.	123	150	0	--	--	--	--	--
<b>05420720, East Fork Wapsipinicon River near Tripoli, IA (site a, fig. 1)</b>										
08-28-97	0915	regular	148	182	0	--	--	--	--	--
05-19-98	1405	do.	123	150	0	--	--	--	--	--
<b>05420900, Little Wapsipinicon River at Littleton, IA (site b, fig. 1)</b>										
08-20-97	1235	regular	140	162	4	--	--	--	--	--
05-20-98	0947	do.	132	161	0	--	--	--	--	--
<b>05421700, Buffalo Creek near Stone City, IA (site c, fig. 1)</b>										
08-14-97	1400	regular	172	200	5	--	--	--	--	--
05-21-98	1523	do.	177	214	1	--	--	--	--	--
<b>05421870, Mud Creek near Donahue, IA (site d, fig. 1)</b>										
08-14-97	0940	regular	248	305	0	--	--	--	--	--
05-21-98	1023	do.	184	225	0	--	--	--	--	--
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>										
10-15-96	1120	regular	119	140	2	100	780	--	--	--
11-13-96	0946	do.	191	233	0	95	350	--	--	--
12-09-96	0924	do.	169	206	0	72	K110	--	--	--
01-13-97	1025	do.	211	257	0	870	2,800	--	--	--
02-11-97	1017	do.	171	209	0	130	190	--	--	--
03-20-97	0920	do.	51	62	0	92	220	--	--	--
04-07-97	1335	do.	138	168	0	--	--	--	--	--
05-06-97	0937	do.	122	149	0	--	--	--	--	--
06-02-97	1304	do.	126	137	8	--	--	--	--	--
06-17-97	0935	do.	112	124	6	--	--	--	--	--
06-26-97	0933	do.	120	146	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>										
07-07-97	1306	regular	132	161	0	--	--	--	--	--
08-06-97	1540	do.	82	61	19	--	--	--	--	--
09-03-97	1210	do.	131	148	6	--	--	--	--	--
10-09-97	0907	do.	157	50	70	--	--	--	--	--
11-06-97	0915	do.	182	195	13	--	--	--	--	--
12-04-97	0900	do.	173	211	0	--	--	--	--	--
01-08-98	0843	do.	178	217	0	--	--	--	--	--
02-20-98	0842	do.	186	227	0	--	--	--	--	--
03-12-98	0850	do.	157	172	10	--	--	--	--	--
04-02-98	0900	do.	105	128	0	--	--	--	--	--
05-06-98	0925	do.	166	173	14	--	--	--	--	--
06-03-98	0915	do.	116	142	0	--	--	--	--	--
06-17-98	1300	do.	104	127	0	--	--	--	--	--
07-09-98	0855	do.	126	154	0	--	--	--	--	--
08-06-98	0900	do.	127	155	0	--	--	--	--	--
09-02-98	0915	do.	136	166	0	--	--	--	--	--
<b>05449200, East Branch Iowa River at Belmond, IA (site e, fig. 1)</b>										
08-26-97	0925	regular	199	237	4	--	--	--	--	--
05-20-98	0856	do.	235	287	0	--	--	--	--	--
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>										
10-08-96	1010	regular	254	310	0	150	700	--	--	--
11-05-96	0935	do.	312	381	0	580	890	--	--	--
12-03-96	0928	do.	327	399	0	350	150	--	--	--
01-09-97	0950	do.	284	347	0	K990	2,800	--	--	--
02-04-97	1015	do.	221	270	0	1,200	2,000	--	--	--
03-11-97	0950	do.	101	190	0	K330	34,000	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued										
03-18-97	0856	regular	136	166	0	K190	10,000	--	--	--
03-25-97	0908	do.	150	183	0	300	20,000	--	--	--
04-03-97	0847	do.	233	286	0	K60	K380	--	--	--
04-09-97	0854	do.	251	306	0	77	600	--	--	--
04-15-97	0925	do.	230	281	0	86	230	--	--	--
04-22-97	0944	do.	281	345	0	K390	K92	--	--	--
04-29-97	0913	do.	250	306	0	340	110	2,700	330	260
05-03-97	1046	do.	231	288	0	--	--	--	--	--
05-13-97	0951	do.	248	305	0	140	--	1,200	K84	--
05-20-97	0853	do.	239	292	0	--	--	5,400	210	--
05-28-97	0933	do.	256	312	0	--	--	K8,700	180	--
06-04-97	0921	do.	264	322	0	--	--	96	140	140
06-10-97	0919	do.	248	303	0	--	--	210	210	240
06-17-97	0858	do.	251	306	0	--	--	1,600	5,400	5,100
06-23-97	1156	do.	81	98	0	--	--	--	12,000	9,600
07-01-97	0905	do.	229	281	0	--	--	9,800	940	880
07-15-97	0850	do.	245	301	0	--	--	--	--	--
07-29-97	0900	do.	251	253	0	--	--	27,000	3,800	4,100
08-11-97	1200	do.	190	236	0	--	--	880	500	500
08-26-97	0837	do.	224	254	10	--	--	1,400	620	580
09-11-97	1005	do.	252	309	0	--	--	2,700	600	650
09-25-97	0852	do.	241	294	0	--	--	--	--	--
10-08-97	0948	do.	262	320	0	--	--	--	--	--
10-20-97	1134	do.	266	325	0	--	--	--	--	--
11-05-97	0857	do.	246	300	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>										
11-17-97	1134	regular	261	318	0	--	--	--	--	--
12-02-97	0908	do.	241	294	0	--	--	--	--	--
01-06-98	0919	do.	241	294	0	--	--	--	--	--
02-18-98	0924	do.	107	131	0	--	--	--	--	--
03-12-98	0926	do.	266	325	0	--	--	--	--	--
03-31-98	0922	do.	200	244	0	--	--	--	--	--
05-05-98	0922	do.	167	204	0	--	--	--	--	--
05-20-98	1223	do.	241	294	0	--	--	--	--	--
06-02-98	0904	do.	256	312	0	--	--	--	--	--
06-13-98	0928	do.	257	289	12	--	--	--	--	--
06-23-98	0848	do.	138	168	0	--	--	--	--	--
07-07-98	0900	do.	249	304	0	--	--	--	--	--
08-04-98	0903	do.	221	270	0	--	--	--	--	--
09-01-98	0944	do.	260	317	0	--	--	--	--	--
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>										
09-10-98	1030	regular	278	339	0	--	--	--	--	--
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>										
10-07-96	1215	regular	234	271	7	500	480	--	--	--
11-04-96	1210	do.	292	356	0	K14,000	8,400	--	--	--
12-02-96	1155	do.	301	353	7	--	960	--	--	--
01-06-97	1133	do.	134	164	0	K1,900	K36,000	--	--	--
02-03-97	1108	do.	155	189	0	630	5200	--	--	--
03-10-97	1155	replicate	151	184	0	K430,000	21,000	--	--	--
03-10-97	1200	do.	--	--	--	K430,000	21,000	--	--	--
04-10-97	0904	do.	282	344	0	--	--	--	--	--
05-15-97	1157	regular	295	276	42	--	--	K19	K23	K22
06-05-97	0818	do.	254	310	0	--	--	750	420	460

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued										
06-21-97	1302	regular	75	92	0	--	--	--	--	--
07-10-97	0824	do.	248	303	0	--	--	8,400	1,300	1,000
07-28-97	1138	do.	--	--	--	--	--	660	680	560
08-04-97	1017	do.	276	296	1	--	--	510	500	390
08-04-97	1022	replicate	--	--	--	--	--	490	340	450
08-04-97	1027	do.	--	--	--	--	--	730	450	--
08-04-97	1032	do.	--	--	--	--	--	510	330	--
08-19-97	0920	regular	142	166	0	--	--	--	--	--
09-10-97	0830	do.	208	256	0	--	--	2,600	2,300	1,000
10-07-97	1054	do.	238	284	5	--	--	--	--	--
11-04-97	1120	do.	228	278	0	--	--	--	--	--
12-01-97	1128	do.	239	292	0	--	--	--	--	--
01-05-98	1154	do.	226	276	0	--	--	--	--	--
02-17-98	1058	do.	138	168	0	--	--	--	--	--
03-11-98	0936	do.	257	314	0	--	--	--	--	--
03-30-98	1113	replicate	211	257	0	--	--	--	--	--
03-30-98	1118	do.	225	275	0	--	--	--	--	--
04-01-98	1033	regular	202	246	0	--	--	--	--	--
05-04-98	1120	do.	200	234	5	--	--	--	--	--
05-22-98	0656	do.	197	240	0	--	--	--	--	--
05-29-98	1246	do.	110	134	0	--	--	--	--	--
06-01-98	1318	do.	226	276	0	--	--	--	--	--
06-12-98	1155	do.	196	239	0	--	--	--	--	--
07-06-98	1213	do.	227	277	0	--	--	--	--	--
08-03-98	1046	do.	238	290	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued										
08-31-98	1102	regular	256	288	12	--	--	--	--	--
05452020, Salt Creek at Belle Plaine, IA (site g, fig. 1)										
08-21-97	1245	regular	202	246	0	--	--	--	--	--
05-18-98	0925	do.	194	237	0	--	--	--	--	--
05453100, Iowa River at Marengo, IA (site 5, fig. 1)										
10-16-96	0939	regular	149	177	2	52	900	--	--	--
11-14-96	0925	do.	272	332	0	75	170	--	--	--
12-10-96	0935	do.	270	329	0	K40	150	--	--	--
01-14-97	1200	do.	231	282	0	190	K62	--	--	--
02-13-97	0949	do.	208	254	0	K32	160	--	--	--
03-19-97	0955	do.	173	211	0	K37	K320	--	--	--
04-10-97	1557	do.	246	300	0	--	--	--	--	--
05-06-97	0914	do.	196	239	0	--	--	--	--	--
06-05-97	1402	do.	216	242	11	--	--	230	80	77
06-24-97	1000	do.	123	150	0	--	--	--	--	--
07-10-97	1343	do.	217	265	0	--	--	3,000	540	440
07-29-97	0954	replicate	--	--	--	--	--	40	100	82
07-29-97	0959	do.	--	--	--	--	--	240	94	92
08-05-97	1334	do.	208	251	1	--	--	K43	K50	K65
08-05-97	1339	do.	--	--	--	--	--	K52	K54	K42
08-05-97	1344	do.	--	--	--	--	--	K56	K39	--
08-05-97	1349	do.	--	--	--	--	--	K43	K38	--
09-08-97	1043	regular	172	210	0	--	--	1,500	970	940
10-08-97	0937	replicate	141	138	11	--	--	--	--	--
10-08-97	0942	do.	139	150	0	--	--	--	--	--
11-05-97	0936	regular	229	279	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)—Continued</b>										
12-03-97	0930	regular	217	265	0	--	--	--	--	--
01-07-98	0846	do.	186	227	0	--	--	--	--	--
02-19-98	0916	do.	180	220	0	--	--	--	--	--
03-11-98	0855	do.	211	245	6	--	--	--	--	--
04-02-98	1355	do.	137	167	0	--	--	--	--	--
05-08-98	0843	do.	208	254	0	--	--	--	--	--
06-05-98	0900	do.	213	260	0	--	--	--	--	--
06-13-98	0946	do.	119	145	0	--	--	--	--	--
06-26-98	0922	do.	140	171	0	--	--	--	--	--
07-07-98	0920	do.	190	232	0	--	--	--	--	--
08-07-98	0900	do.	189	231	0	--	--	--	--	--
09-04-98	0850	do.	250	303	1	--	--	--	--	--
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>										
10-07-96	0948	regular	176	215	0	260	1,300	--	--	--
11-12-96	0956	do.	189	231	0	180	360	--	--	--
12-02-96	0945	do.	203	248	0	500	7,800	--	--	--
01-06-97	0938	do.	174	212	0	210	1,100	--	--	--
02-04-97	0919	do.	81	99	0	1,200	20,000	--	--	--
03-10-97	1025	do.	60	73	0	3,000	210,000	--	--	--
04-08-97	1337	do.	169	205	0	--	--	--	--	--
05-01-97	0914	do.	120	146	0	--	--	--	--	--
05-08-97	0903	do.	104	127	0	--	--	--	--	--
05-27-97	0947	do.	134	164	0	--	--	--	--	--
06-03-97	1246	do.	142	173	0	--	--	--	--	--
07-08-97	1210	do.	152	185	0	--	--	--	--	--
08-07-97	1425	do.	148	171	5	--	--	--	--	--



**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>										
08-11-97	0908	regular	179	220	0	--	--	--	--	--
09-02-97	1545	do.	110	134	0	--	--	--	--	--
10-07-97	1350	do.	189	231	0	--	--	--	--	--
11-04-97	1243	replicate	148	181	0	--	--	--	--	--
11-04-97	1248	do.	150	183	0	--	--	--	--	--
12-02-97	1223	regular	189	231	0	--	--	--	--	--
01-06-98	1240	do.	153	187	0	--	--	--	--	--
02-18-98	1235	do.	212	259	0	--	--	--	--	--
03-10-98	1310	do.	147	179	0	--	--	--	--	--
03-31-98	1245	do.	79	96	0	--	--	--	--	--
05-05-98	1343	do.	145	177	0	--	--	--	--	--
05-18-98	0825	do.	128	156	0	--	--	--	--	--
06-02-98	1325	do.	161	196	0	--	--	--	--	--
06-10-98	0826	do.	123	150	0	--	--	--	--	--
06-30-98	1239	do.	113	138	0	--	--	--	--	--
07-10-98	0745	do.	168	205	0	--	--	--	--	--
08-05-98	0810	do.	176	215	0	--	--	--	--	--
09-01-98	1300	do.	191	233	0	--	--	--	--	--
<b>05455500, English River near Kalona, IA (site h, fig. 1)</b>										
08-11-97	1417	regular	123	142	0	--	--	--	--	--
05-18-98	1430	do.	126	154	0	--	--	--	--	--
<b>05456510, Turtle Creek at Austin, MN (site j, fig. 1)</b>										
08-27-97	0840	regular	255	312	0	--	--	--	--	--
05-19-98	0901	do.	249	299	0	--	--	--	--	--
<b>05457950, Little Cedar River near Floyd, IA (site l, fig. 1)</b>										
08-27-97	1400	regular	161	195	0	--	--	--	--	--
05-18-98	1346	do.	162	198	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>										
08-25-97	1500	regular	199	239	2	--	--	--	--	--
05-21-98	1221	do.	184	225	0	--	--	--	--	--
09-09-98	0957	do.	222	264	4	--	--	--	--	--
<b>05459300, Winnebago River near Fertile, IA (site o, fig. 1)</b>										
08-26-97	1250	regular	203	222	13	--	--	--	--	--
05-19-98	1308	do.	230	281	0	--	--	--	--	--
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>										
10-23-96	1107	regular	161	196	0	K9,700	5,400	--	--	--
12-11-96	1150	do.	207	253	0	460	800	--	--	--
01-14-97	0950	do.	197	240	0	K44	320	--	--	--
02-19-97	1050	do.	171	209	0	220	3,600	--	--	--
03-18-97	1018	do.	73	89	0	380	210,000	--	--	--
04-09-97	1446	do.	174	214	0	--	--	--	--	--
05-03-97	1053	do.	156	190	0	--	--	--	--	--
06-04-97	1310	do.	182	222	0	--	--	--	--	--
07-09-97	1151	do.	178	217	0	--	--	--	--	--
08-04-97	1613	do.	168	205	0	--	--	--	--	--
08-25-97	1130	do.	127	148	0	--	--	--	--	--
09-04-97	1248	do.	204	249	0	--	--	--	--	--
10-09-97	0823	do.	169	205	0	--	--	--	--	--
11-06-97	0855	do.	183	223	0	--	--	--	--	--
12-03-97	0852	do.	159	194	0	--	--	--	--	--
01-07-98	0902	do.	166	203	0	--	--	--	--	--
02-19-98	0948	do.	105	128	0	--	--	--	--	--
03-13-98	0850	do.	187	228	0	--	--	--	--	--
04-02-98	0843	do.	113	138	0	--	--	--	--	--
05-06-98	0838	do.	157	192	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)—Continued</b>										
05-18-98	1004	regular	172	210	0	--	--	--	--	--
06-03-98	0906	do.	168	205	0	--	--	--	--	--
07-08-98	0848	do.	152	185	0	--	--	--	--	--
08-05-98	0837	do.	170	207	0	--	--	--	--	--
09-02-98	0842	do.	181	221	0	--	--	--	--	--
<b>05462770, Beaver Creek near Parkersburg, IA (site p, fig. 1)</b>										
08-19-97	1235	regular	233	257	16	--	--	--	--	--
05-21-98	0848	do.	189	231	0	--	--	--	--	--
<b>05463510, Black Hawk Creek at Waterloo, IA (site q, fig. 1)</b>										
08-20-97	0910	regular	149	100	36	--	--	--	--	--
05-20-98	1253	do.	146	178	0	--	--	--	--	--
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>										
10-15-96	1120	regular	175	199	7	250	1,100	--	--	--
11-12-96	1103	do.	231	282	0	590	220	--	--	--
12-12-96	1340	do.	215	262	0	940	710	--	--	--
01-15-97	0855	do.	236	288	0	2,800	1,400	--	--	--
02-10-97	1015	do.	202	246	0	2,000	1,000	--	--	--
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>										
10-10-96	1047	regular	194	237	0	150	270	--	--	--
11-07-96	1018	do.	194	237	0	K17,000	K66,000	--	--	--
12-05-96	0959	do.	223	272	0	130	K97	--	--	--
01-13-97	1205	do.	223	272	0	140	320	--	--	--
02-06-97	0923	do.	144	176	0	310	2,800	--	--	--
03-12-97	1035	do.	156	190	0	K110	1,800	--	--	--
03-17-97	0945	do.	161	196	0	210	580	--	--	--
03-24-97	1026	do.	186	227	0	K66	340	--	--	--
04-02-97	1026	do.	189	233	0	K50	K17	--	--	--
04-08-97	1030	do.	182	222	0	260	1,500	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued										
04-14-97	1235	regular	162	198	0	200	1,500	--	--	--
04-21-97	1028	do.	193	236	0	K130	K150	--	--	--
04-28-97	1026	do.	174	212	0	K6	K21	--	--	--
05-05-97	1015	do.	162	198	0	--	2,200	--	--	--
05-12-97	1022	do.	166	203	0	330	--	--	--	--
05-19-97	1033	do.	166	203	0	740	180	--	--	--
05-27-97	0936	do.	172	210	0	--	--	--	--	--
06-03-97	1116	do.	241	294	0	--	--	--	--	--
06-09-97	0946	do.	171	209	0	--	--	--	--	--
06-16-97	0943	do.	151	184	0	--	--	--	--	--
06-24-97	0951	do.	144	176	0	--	--	--	--	--
06-30-97	1022	do.	169	184	11	--	--	--	--	--
07-14-97	0944	do.	165	201	0	--	--	--	--	--
07-28-97	0928	replicate	204	251	0	--	--	--	--	--
07-28-97	0933	do.	195	239	0	--	--	--	--	--
08-12-97	0916	regular	179	215	0	--	--	--	--	--
08-21-97	0840	do.	173	212	0	--	--	--	--	--
08-25-97	1000	do.	134	164	0	--	--	--	--	--
09-09-97	0945	do.	167	204	0	--	--	--	--	--
09-24-97	0940	do.	170	207	0	--	--	--	--	--
10-10-97	0938	replicate	160	196	0	--	--	--	--	--
10-10-97	0943	do.	174	216	0	--	--	--	--	--
10-21-97	0854	regular	207	253	0	--	--	--	--	--
11-07-97	0919	do.	206	251	0	--	--	--	--	--
11-18-97	0857	do.	213	260	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>										
12-04-97	0919	regular	197	240	0	--	--	--	--	--
01-08-98	0910	do.	192	234	0	--	--	--	--	--
02-20-98	0941	do.	160	195	0	--	--	--	--	--
03-18-98	0918	do.	179	218	0	--	--	--	--	--
04-01-98	0945	do.	107	131	0	--	--	--	--	--
05-07-98	0919	do.	172	210	0	--	--	--	--	--
05-18-98	1327	do.	186	227	0	--	--	--	--	--
06-04-98	0933	do.	187	228	0	--	--	--	--	--
06-10-98	1215	do.	139	170	0	--	--	--	--	--
06-12-98	1238	do.	44	54	0	--	--	--	--	--
06-22-98	1415	do.	88	107	0	--	--	--	--	--
07-09-98	0924	do.	127	216	0	--	--	--	--	--
08-06-98	0855	do.	146	178	0	--	--	--	--	--
09-03-98	0956	do.	207	253	0	--	--	--	--	--
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>										
10-29-96	1030	regular	147	179	0	88	280	--	--	--
11-13-96	1013	do.	220	268	0	75	K47	--	--	--
12-05-96	1030	do.	217	265	0	280	310	--	--	--
01-22-97	0950	replicate	216	264	0	210	K10,000	--	--	--
01-22-97	0955	do.	232	283	0	--	--	--	--	--
02-03-97	0938	regular	196	239	0	1,400	2,800	--	--	--
03-13-97	0950	do.	173	211	0	K270	K140,000	--	--	--
04-07-97	0921	do.	185	225	0	--	--	--	--	--
05-07-97	0933	do.	175	214	0	--	--	--	--	--
06-02-97	0838	do.	171	199	5	--	--	--	--	--
06-17-97	1418	do.	126	150	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>										
07-07-97	0902	regular	186	227	0	--	--	--	--	--
08-06-97	1110	do.	160	164	16	--	--	--	--	--
09-03-97	0834	do.	109	123	5	--	--	--	--	--
10-09-97	1232	do.	116	93	24	--	--	--	--	--
11-06-97	1302	do.	212	259	0	--	--	--	--	--
12-04-97	1230	do.	214	212	24	--	--	--	--	--
01-08-98	1233	do.	195	238	0	--	--	--	--	--
02-20-98	1156	do.	212	259	0	--	--	--	--	--
03-12-98	1200	do.	192	234	0	--	--	--	--	--
04-03-98	0851	do.	129	157	0	--	--	--	--	--
05-07-98	0827	do.	238	166	61	--	--	--	--	--
06-04-98	0900	do.	219	267	0	--	--	--	--	--
07-06-98	0847	do.	162	198	0	--	--	--	--	--
08-04-98	1300	do.	124	139	6	--	--	--	--	--
09-03-98	0840	do.	196	215	12	--	--	--	--	--
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>										
10-10-96	1015	regular	116	127	7	K65	1,400	--	--	--
10-29-96	0855	do.	151	184	0	620	200	--	--	--
<b>05465310, Long Creek near Columbus Junction, IA (site r, fig. 1)</b>										
08-12-97	1430	regular	134	165	0	--	--	--	--	--
05-20-98	1442	do.	166	203	0	--	--	--	--	--
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>										
10-08-96	1155	regular	87	104	1	K35	990	--	--	--
11-06-96	1038	do.	193	233	1	480	590	--	--	--
12-03-96	1040	do.	216	264	0	85	K100	--	--	--
01-07-97	1115	do.	236	288	0	52	450	--	--	--
02-05-97	1030	do.	178	217	0	400	15,000	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued										
03-11-97	1220	regular	120	148	0	1,400	78,000	--	--	--
03-20-97	0918	do.	115	139	0	K0	580	--	--	--
03-27-97	0941	do.	120	148	0	180	1,300	--	--	--
03-31-97	0936	do.	141	172	0	K88	290	--	--	--
04-10-97	0922	do.	181	221	0	K35	270	--	--	--
04-16-97	0931	do.	192	234	0	K400	1,300	--	--	--
04-23-97	0945	do.	237	287	1	K1,600	530	--	--	--
04-30-97	0956	do.	142	171	1	K17	310	--	--	--
05-07-97	0920	do.	151	184	0	K73	--	--	--	--
05-14-97	0955	do.	194	237	0	86	300	--	--	--
05-21-97	1028	do.	152	185	0	K1,600	7,900	--	--	--
05-29-97	1049	do.	136	166	0	--	--	--	--	--
06-05-97	0940	do.	132	161	0	--	--	--	--	--
06-12-97	0906	do.	131	160	0	--	--	--	--	--
06-19-97	0908	do.	131	160	0	--	--	--	--	--
06-25-97	0955	do.	152	185	0	--	--	--	--	--
07-02-97	0912	do.	144	176	0	--	--	--	--	--
07-16-97	0941	do.	181	184	18	--	--	--	--	--
07-31-97	0927	do.	164	190	5	K53	--	--	--	--
08-13-97	0918	do.	116	142	0	--	--	--	--	--
08-28-97	0919	do.	117	140	1	--	--	--	--	--
09-05-97	0906	do.	114	139	1	--	--	--	--	--
09-23-97	0936	do.	127	145	5	--	--	--	--	--
10-06-97	1050	do.	100	95	13	--	--	--	--	--
10-22-97	0951	do.	180	205	7	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>										
11-03-97	0953	regular	154	188	0	--	--	--	--	--
11-19-97	0935	do.	195	238	0	--	--	--	--	--
12-01-97	0928	do.	206	234	8	--	--	--	--	--
01-05-98	0938	do.	176	215	0	--	--	--	--	--
02-17-98	0936	do.	151	184	0	--	--	--	--	--
03-09-98	1000	do.	210	256	0	--	--	--	--	--
03-30-98	0905	do.	172	210	0	--	--	--	--	--
04-04-98	1020	do.	110	134	0	--	--	--	--	--
05-04-98	0909	do.	188	225	2	--	--	--	--	--
05-27-98	1148	do.	161	187	5	--	--	--	--	--
06-01-98	0913	do.	151	184	0	--	--	--	--	--
06-19-98	1002	do.	136	166	0	--	--	--	--	--
07-02-98	1049	do.	144	176	0	--	--	--	--	--
08-03-98	0925	do.	176	215	0	--	--	--	--	--
08-31-98	0940	do.	187	228	0	--	--	--	--	--
<b>05469980, South Skunk River near Story City, IA (site s, fig. 1)</b>										
08-18-97	1430	regular	261	271	24	--	--	--	--	--
05-21-98	0743	do.	245	299	0	--	--	--	--	--
<b>05471120, East Branch Indian Creek near Iowa Center, IA (site t, fig. 1)</b>										
08-18-97	1057	regular	216	266	0	--	--	--	--	--
05-21-98	1137	do.	213	255	2	--	--	--	--	--
<b>05473060, Crooked Creek at Coppock, IA (site u, fig. 1)</b>										
08-12-97	1002	regular	209	256	0	--	--	--	--	--
05-19-98	0946	do.	153	187	0	--	--	--	--	--
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>										
08-13-97	1355	regular	154	109	36	--	--	--	--	--
05-19-98	1449	do.	149	182	0	--	--	--	--	--



**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05473550, Big Creek near Lowell, IA (site w, fig. 1)										
08-13-97	0945	regular	197	244	0	--	--	--	--	--
05-20-98	0838	do.	176	215	0	--	--	--	--	--
05474000, Skunk River at Augusta, IA (site 12, fig. 1)										
10-09-96	0940	regular	93	87	13	K35	3,000	--	--	--
11-07-96	0909	do.	221	270	0	K38	280	--	--	--
12-04-96	0933	do.	289	353	0	K50	330	--	--	--
01-08-97	0930	do.	280	342	0	K13	K140	--	--	--
02-06-97	0857	do.	132	161	0	860	15,000	--	--	--
03-12-97	0930	do.	187	228	0	360	260,000	--	--	--
04-08-97	0840	do.	247	301	0	--	--	--	--	--
05-13-97	1110	do.	180	220	0	--	--	--	--	--
05-28-97	1205	do.	96	117	0	--	--	--	--	--
06-03-97	0814	do.	192	234	0	--	--	--	--	--
06-26-97	1515	do.	132	161	0	--	--	--	--	--
07-08-97	0804	do.	200	244	0	--	--	--	--	--
08-07-97	0930	do.	156	161	14	--	--	--	--	--
09-02-97	1050	do.	140	171	0	--	--	--	--	--
10-07-97	0903	do.	161	196	0	--	--	--	--	--
11-04-97	0822	do.	119	145	0	--	--	--	--	--
12-02-97	0835	do.	175	214	0	--	--	--	--	--
01-06-98	0830	do.	125	153	0	--	--	--	--	--
02-18-98	0835	do.	198	242	0	--	--	--	--	--
03-10-98	0840	do.	94	115	0	--	--	--	--	--
03-31-98	0824	do.	100	122	0	--	--	--	--	--
05-05-98	0830	do.	198	242	0	--	--	--	--	--
05-26-98	1200	do.	92	112	0	--	--	--	--	--

**Table 11.** Miscellaneous onsite determinations at selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month- day-year)	Time (24-hour)	Type of sample	Alkalinity (mg/L) (39086)	Bicarbonate (mg/L) (00453)	Carbonate (mg/L) (00452)	Fecal coliform (col/100 mL) (31625)	Fecal streptococci (col/100 mL) (31673)	Total coliform on mENDO agar (col/100 mL) (31501)	E. coli on mTEC agar (col/100 mL) (31633)	E. coli on modified mTec agar (col/100 mL) (90902)
05474000, Skunk River at Augusta, IA (site 12, fig. 1)—Continued										
06-02-98	0820	regular	147	179	0	--	--	--	--	--
06-18-98	1044	do.	116	142	0	--	--	--	--	--
07-08-98	0930	do.	134	164	0	--	--	--	--	--
08-04-98	0810	do.	234	261	12	--	--	--	--	--
09-01-98	0815	do.	86	105	0	--	--	--	--	--

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998

[mg/L, milligrams per liter; <, less than detection limit indicated; >, greater than; --, data not collected. Numbers in parentheses () are the U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)													
10-09-96	1043	regular	<0.02	<0.01	<0.20	0.31	0.30	0.06	0.01	0.02	3.8	--	5
11-06-96	1058	blank	.03	.02	<.20	<.05	<.20	<.01	<.01	<.01	2.1	0.2	--
11-06-96	1118	regular	.09	.03	.30	1.8	.40	.03	.03	.02	3.0	.3	3
12-04-96	1011	do.	.15	.04	.30	7.3	.50	.03	.02	.04	2.6	.3	6
01-08-97	1103	do.	.41	.05	1.0	7.0	1.1	.21	.12	.11	4.4	.8	9
01-08-97	1108	replicate	.41	.06	.90	7.2	1.1	.21	.12	.11	4.3	.8	10
02-05-97	1105	regular	.23	.05	.50	4.1	.50	.04	.02	<.01	2.1	.30	8
03-17-97	1305	do.	.63	.06	1.3	3.3	1.6	.22	.08	.06	7.6	1.6	31
04-09-97	0858	do.	.08	.04	.40	8.5	1.3	.34	.03	.04	3.7	.7	144
05-05-97	1044	do.	.04	.07	.56	9.5	.56	.09	.05	.05	5.0	.5	18
06-04-97	0934	blank	<.02	<.01	<.20	<.05	<.20	<.01	<.01	<.01	.4	.2	--
06-04-97	0954	regular	<.02	.06	.21	6.5	.56	.08	<.01	.02	2.7	.5	15
06-22-97	1130	do.	.11	.09	.54	8.5	.98	.23	.12	.05	4.4	2.0	41
07-09-97	0824	do.	<.02	.02	.23	4.3	.58	.10	.02	.03	2.7	1.1	64
08-05-97	0819	do.	<.02	.03	.37	5.7	.41	.06	.06	.04	3.4	1.0	24
08-28-97	1230	do.	<.02	.15	.52	.17	.53	.03	.02	<.01	3.1	.9	8
09-04-97	0944	do.	<.02	.04	.36	3.9	.81	.18	.05	.05	3.9	1.1	26
10-09-97	1208	blank	<.02	<.01	<.20	.06	<.20	<.01	<.01	<.01	--	--	--
10-09-97	1228	regular	<.02	.04	.50	1.9	.53	.04	.04	<.01	3.0	.4	4
11-06-97	1249	do.	<.02	.03	.27	6.7	.37	.03	.02	.03	2.3	.4	6
12-03-97	1249	do.	<.02	.02	.19	4.6	.24	.02	.01	.01	2.1	.4	4
01-07-98	1247	do.	.05	<.01	.31	4.0	.25	.01	<.01	.02	2.2	.4	2
02-19-98	1351	do.	.84	.06	2.2	4.4	2.7	.57	.37	.29	14	3.6	72

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)—Continued</b>													
03-13-98	1223	regular	0.08	0.04	0.30	11	0.52	0.05	<0.01	0.02	2.1	0.5	12
04-02-98	1443	do.	.08	.04	.81	8.9	1.2	.21	.10	.08	5.9	1.1	38
05-06-98	1249	do.	.03	.03	.27	7.8	.25	.01	<.01	.01	2.7	.4	10
05-19-98	0920	blank	--	--	--	--	--	--	--	--	.4	.3	--
05-19-98	0940	regular	.04	.06	.47	9.2	.66	.08	.02	.03	3.1	.9	18
05-19-98	0945	replicate	.02	.06	.47	9.2	.69	.07	.06	.03	--	--	18
05-27-98	1335	regular	.08	.10	.59	14	.88	.15	.03	.01	2.7	1.8	26
06-03-98	1450	do.	.03	.08	.36	12	.75	.06	.07	.04	2.6	.9	30
06-20-98	1030	do.	<.02	.07	.56	8.1	1.6	.35	.09	.08	5.5	4.0	143
07-08-98	1315	do.	.02	.10	.69	9.7	.98	.10	.02	.02	3.4	.9	38
08-05-98	1231	do.	.05	.02	.26	1.9	.44	.08	.03	.04	2.8	1.0	13
09-02-98	1308	do.	<.02	.04	.47	5.4	1.1	.17	.08	.06	4.6	1.1	34
<b>05420720, East Fork Wapsipinicon River near Tripoli, IA (site a, fig. 1)</b>													
08-28-97	0915	regular	<.02	.06	.98	1.2	1.0	.19	.16	.02	3.5	1.0	22
05-19-98	1405	do.	.03	.07	.42	11	.73	.06	.07	.01	2.3	.9	12
<b>05420900, Little Wapsipinicon River at Littleton, IA (site b, fig. 1)</b>													
08-20-97	1235	regular	<.02	.04	.23	2.7	.37	.03	.02	.01	3.0	.3	17
05-20-98	0947	do.	<.02	.06	.36	10	.47	.03	.01	.03	2.3	1.2	19
<b>05421700, Buffalo Creek near Stone City, IA (site c, fig. 1)</b>													
08-14-97	1400	regular	<.02	.05	<.20	3.5	.31	.03	.04	.03	2.1	.5	10
05-21-98	1523	do.	.04	.05	.27	11	.48	.04	.04	<.01	1.6	.6	39
<b>05421870, Mud Creek near Donahue, IA (site d, fig. 1)</b>													
08-14-97	0940	regular	<.02	.36	.94	.72	1.2	.17	.08	<.01	4.0	.8	41
05-21-98	1023	do.	.06	.08	.59	13	.86	.14	.06	<.01	2.0	.9	63
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	.03	.02	.20	.11	1.9	.22	<.01	<.01	3.1	>5.0	55

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus nitrite, dissolved (mg/L as N)										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued													
11-13-96	0946	regular	0.07	0.04	0.30	6.3	0.80	0.12	0.02	0.02	2.4	1.9	43
12-09-96	0924	do.	.06	.03	.30	8.2	.30	.04	.04	.05	2.2	.4	16
01-13-97	1025	do	.36	.04	.90	7.4	1.0	.16	.11	.11	4.2	.6	15
02-11-97	1017	do.	.27	.05	.50	4.6	.40	.10	.12	.10	2.4	.2	7
03-20-97	0920	do.	.46	.03	1.2	2.6	2.2	.37	.07	.07	7.3	2.8	207
04-07-97	1335	do.	<.02	.02	.30	4.7	.90	.21	.05	.07	3.0	1.6	89
05-06-97	0937	do.	<.02	.04	.43	10	1.5	.31	.05	.04	3.3	<5.0	252
06-02-97	1304	do.	<.02	.03	.29	6.2	1.8	.16	<.01	<.01	2.4	4.4	36
06-02-97	1309	replicate	.02	.03	<.20	6.0	1.8	.16	<.01	<.01	2.0	3.5	--
06-17-97	0935	regular	<.02	.04	<.20	4.7	1.7	.20	<.01	<.01	4.0	>5.0	101
06-26-97	0933	do.	<.02	.08	.46	10	2.1	.58	.10	.08	4.1	>5.0	472
07-07-97	1306	do.	<.02	.04	.48	8.1	1.7	.30	.08	.06	3.0	>5.0	219
08-06-97	1540	do.	<.02	.03	.38	.61	2.1	.33	<.01	.01	3.8	>5.0	96
09-03-97	1210	do.	<.02	.02	.26	.23	2.2	.30	.02	.02	3.0	>5.0	113
10-09-97	0907	do.	.07	.02	.24	.40	2.0	.19	<.01	.01	3.1	3.1	63
11-06-97	0915	do.	<.02	.02	.30	7.3	.57	.10	.05	.08	2.8	1.0	25
12-04-97	0900	do.	<.02	<.01	.20	6.6	.48	.08	.04	.04	2.1	1.2	34
01-08-98	0823	blank	<.02	<.01	<.10	<.05	<.10	.03	<.01	.02	--	--	--
01-08-98	0843	regular	.07	.02	.48	10	.85	.22	.08	.09	2.9	1.1	70
02-20-98	0842	do.	.09	.02	.41	7.9	.97	.23	.09	.08	3.7	1.1	63
03-12-98	0850	do.	<.02	.02	.33	12	.53	.12	.06	.06	2.1	1.7	51
04-02-98	0900	do.	.09	.04	.71	7.9	1.9	.56	.23	.22	7.2	2.7	232
05-06-98	0925	do.	.03	.02	.22	8.7	1.2	.18	<.01	.01	2.6	2.7	76
06-03-98	0915	do.	.07	.09	1.2	12	2.1	.38	.09	.10	3.7	2.9	179

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
06-17-98	1300	regular	0.05	0.05	0.50	11	1.0	0.26	0.10	0.10	3.9	2.0	102
07-09-98	0855	do.	.03	.04	.81	5.0	1.3	.19	.09	.06	5.2	2.0	92
08-06-98	0900	do.	.04	.02	.24	.97	1.6	.21	<.01	<.01	2.7	>5.0	76
09-02-98	0915	do.	.02	.02	.41	4.9	1.7	.38	.09	.09	4.6	>5.0	212
<b>05449200, East Branch Iowa River at Belmond, IA (site e, fig. 1)</b>													
08-26-97	0925	regular	<.02	.04	.39	.82	1.4	.18	.01	<.01	4.1	2.1	126
05-20-98	0856	do.	.03	.11	.55	11	1.2	.18	.06	.04	3.2	1.6	131
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	<.02	.03	.30	2.8	.60	.08	.04	.04	4.2	1.1	42
10-08-96	1015	replicate	<.02	.03	.20	2.8	.56	.07	.04	.04	3.7	.9	38
11-05-96	0935	regular	.10	.05	.40	7.7	.50	.07	.07	.08	3.0	.3	33
12-03-96	0928	do.	.20	.03	.40	9.7	.50	.09	.07	.08	3.6	.7	139
01-09-97	0950	do.	.35	.06	.90	7.7	1.0	.19	.15	.16	4.2	.5	14
01-09-97	0955	replicate	.34	.05	.80	7.4	1.0	.20	.18	.16	--	--	--
02-04-97	1015	regular	.88	.08	1.4	4.6	1.6	.33	.28	.30	4.9	.7	13
03-11-97	0950	do.	1.20	.12	2.4	1.4	3.9	1.1	.74	.71	13	2.8	93
03-18-97	0856	do.	.70	.13	1.8	2.7	2.3	.67	.52	.51	11	2.7	67
03-25-97	0908	do.	.47	.06	1.3	3.9	1.8	.52	.36	.33	8.3	1.1	51
04-03-97	0847	do.	.16	.04	.70	5.3	1.2	.27	.15	.14	6.3	.5	71
04-09-97	0854	do.	.08	.03	.50	6.4	.80	.18	.10	.11	5.3	--	50
04-15-97	0925	do.	.04	.03	.40	7.7	.90	.17	.07	.08	4.3	1.5	48
04-22-97	0944	do.	.05	.03	.39	7.7	1.2	.20	.05	.06	4.1	1.3	126
04-29-97	0913	do.	<.02	.03	.46	6.8	.88	.11	.05	.06	4.4	.4	142
05-03-97	1046	do.	.06	.05	.45	10	.86	.32	.10	.12	500	.4	73
05-13-97	0951	do.	<.02	.02	.37	8.8	.70	.08	.03	.04	--	--	88

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus nitrite plus nitrate, dissolved										Sediment (mg/L) (80154)
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-20-97	0853	regular	<0.02	0.03	0.43	9.6	0.94	0.09	0.05	0.05	12	0.7	215
05-28-97	0933	do.	<.02	.03	.42	9.1	.72	.09	.02	.05	5.4	.8	79
06-04-97	0921	do.	.02	<.01	.28	7.8	.47	.06	.02	.03	4.2	1.3	186
06-10-97	0919	do.	<.02	.05	.23	7.1	1.2	.20	.06	.06	3.6	3.2	107
06-17-97	0858	do.	.05	.08	.30	6.4	1.1	.24	.10	.09	5.9	1.5	200
06-23-97	1156	do.	.12	.07	.52	5.9	.75	.64	.20	.16	5.4	>5.0	420
07-01-97	0905	do.	.04	.06	.53	11	1.2	.25	.13	.12	5.1	2.6	134
07-15-97	0850	do.	.04	.03	<.20	8.3	1.3	.24	.11	.12	3.8	3.6	170
07-29-97	0900	do.	<.02	.03	.43	7.0	1.1	.23	.14	.13	4.0	2.4	118
08-11-97	1200	do.	.05	.02	.31	1.7	1.9	.24	<.01	<.01	3.7	>5.0	61
08-26-97	0837	do.	<.02	.03	.28	1.2	1.1	.19	.08	.06	3.7	3.8	45
09-11-97	1005	do.	<.02	.04	.35	2.2	.83	.20	.12	.11	3.0	.6	169
09-25-97	0852	do.	<.02	.04	.37	2.0	2.0	.33	.11	.09	3.4	1.2	106
10-08-97	0928	blank	--	--	--	--	--	--	--	--	.4	.2	--
10-08-97	0948	regular	<.02	.02	.28	1.3	1.1	.17	.12	.12	3.7	1.7	128
10-20-97	1134	do.	<.02	.02	.28	3.6	.53	.16	.11	.11	3.3	1.1	107
11-05-97	0857	do.	<.02	.04	.35	2.2	.34	.05	.06	.05	2.8	.7	46
11-17-97	1134	do.	<.02	.02	.26	3.2	.27	.08	.05	.05	3.4	.3	65
12-02-97	0908	do.	<.02	.02	.19	2.7	.25	.06	.04	.09	2.7	.6	21
01-06-98	0919	do.	.04	.02	.35	3.2	.44	.10	.07	.02	3.1	.4	75
02-18-98	0924	do.	1.14	.13	2.7	4.2	3.1	1.5	1.4	1.1	18	4.3	128
03-12-98	0926	do.	.12	.06	.47	8.6	.58	.10	.09	.10	3.7	.4	58
03-31-98	0922	do.	.12	.04	.76	13	1.5	.35	.20	.19	5.4	1.6	100
05-05-98	0922	do.	.03	.03	.43	11	.90	.14	.03	.04	3.6	1.1	81

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-20-98	1223	regular	0.07	0.09	0.78	10	1.7	0.22	0.07	<0.01	4.3	1.6	135
05-20-98	1228	replicate	.08	.09	.69	10	1.6	.19	.05	<.01	4.3	1.6	129
06-02-98	0904	regular	.06	.08	.54	12	1.9	.27	.07	.07	3.7	3.4	164
06-13-98	0928	do.	.05	.05	.53	14	1.2	.22	.07	.06	3.5	2.6	147
06-23-98	0848	do.	.02	.14	.87	9.7	1.9	.41	.21	.17	5.4	1.3	236
07-07-98	0900	do.	.08	.04	.67	10	2.1	.41	.16	.16	5.3	3.3	231
07-07-98	0905	replicate	.09	.05	.70	10	1.9	.40	.16	.15	5.3	2.5	305
08-04-98	0903	regular	.05	.02	.36	2.7	1.5	.28	.06	.07	3.7	4.4	182
09-01-98	0944	do.	.08	.04	.61	5.0	1.3	.23	.14	.14	5.1	2.2	93
05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)													
09-10-98	1030	regular	.05	.03	.31	2.7	.37	.04	.04	.04	2.8	.4	53
05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)													
10-07-96	1215	regular	<.02	<.01	.40	.16	.50	.05	.02	.02	4.5	.8	26
11-04-96	1210	do.	.05	.06	.30	11	.40	.06	.05	.05	3.0	.4	17
12-02-96	1155	do.	.08	.02	.33	17	.44	.12	.10	.10	2.8	.7	54
01-06-97	1133	do.	1.1	.07	2.4	4.8	2.8	1.6	1.4	1.3	11	1.9	31
02-03-97	1108	do.	1.0	.09	2.2	4.5	2.2	.60	.55	.53	8.0	1.6	22
03-10-97	1155	do.	.88	.14	1.8	4.2	4.5	1.3	.52	.50	11	>5.0	857
03-10-97	1200	replicate	.85	.15	1.7	4.1	4.3	1.3	.47	.49	11	>5.0	--
04-10-97	0904	do.	<.02	.02	.30	14	.50	.08	.04	.07	2.7	.6	50
04-10-97	0909	do.	<.02	.02	.30	14	.50	.09	.07	.07	2.7	.7	61
05-15-97	1157	regular	.02	.02	.22	15	.40	.04	.02	.03	2.6	.7	68
05-22-97	0930	do.	<.02	.06	.33	13	.50	.04	<.01	<.01	2.9	.6	--
06-05-97	0818	do.	.02	.07	.26	14	.60	.04	<.01	.01	2.5	.7	17
06-21-97	1302	do.	.27	.09	.79	10	5.6	1.6	.18	.19	6.9	>5.0	1,290



**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen,								Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)							
05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued															
07-10-97	0824	regular	<0.02	0.02	0.47	16	1.1	0.29	0.11	0.10	3.5	2.8	192		
08-04-97	1017	do.	<.02	.13	.56	6.9	.66	.04	<.01	<.01	4.0	.8	23		
08-19-97	0920	do.	.02	.02	.35	1.5	.52	.05	.04	.03	3.9	.4	30		
09-10-97	0830	do.	<.02	<.01	.35	.21	.86	.10	.02	.02	4.0	1.2	22		
10-07-97	1054	do.	<.02	.03	.36	<.05	.50	.06	.02	<.01	4.3	.4	16		
11-04-97	1120	do.	<.02	.04	.31	1.4	.38	.02	<.01	.02	4.4	.6	68		
12-01-97	1128	do.	<.02	.03	.54	3.1	.71	.10	.04	.08	4.6	.9	64		
01-05-98	1154	do.	<.02	.02	.29	4.7	.36	.04	.02	.01	3.1	.4	39		
01-05-98	1159	replicate	<.02	.03	.29	4.7	.38	.02	<.01	.01	--	--	--		
02-17-98	1058	regular	.76	.11	2.2	6.3	3.0	1.4	1.0	.93	15	>5.0	42		
03-11-98	0936	do.	.05	.04	.40	13	.49	.05	.04	.04	2.8	.4	58		
03-30-98	1113	do.	.09	.02	.52	13.	1.3	.30	.14	.14	3.4	1.4	112		
03-30-98	1118	replicate	.11	.02	.51	14	1.2	.29	.14	.14	3.4	1.6	--		
04-01-98	1033	regular	.04	<.01	.47	15	1.3	.16	.13	.11	3.5	1.8	122		
05-04-98	1120	do.	.03	.03	.31	16	.44	.02	<.01	.01	2.8	.6	24		
05-22-98	0656	do.	.05	.09	.45	14	.87	.05	.02	<.01	2.8	.9	97		
05-29-98	1246	do.	.26	.09	1.1	17	4.0	1.1	.20	.17	7.0	>5.0	931		
06-01-98	1318	do.	.10	.05	.54	22	1.6	.34	.12	.13	3.6	3.0	257		
06-12-98	1155	do.	.06	.03	.71	19	2.1	.43	.20	.18	4.6	>5.0	305		
07-06-98	1213	do.	.06	.05	.59	13	1.4	.34	.17	.16	4.4	2.7	302		
08-03-98	1046	do.	.05	.05	.41	7.6	.63	.07	.02	.03	4.0	.7	47		
08-31-98	1102	do.	.04	.03	.47	9.8	.60	.06	.04	.06	3.9	.6	19		

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05452020, Salt Creek at Belle Plaine, IA (site g, fig. 1)													
08-21-97	1245	regular	<0.02	0.03	<0.20	2.6	0.56	0.06	0.05	0.06	2.4	0.5	33
05-18-98	0925	do.	.04	.05	.35	10	.58	.11	.03	<.01	2.1	2.6	110
05453100, Iowa River at Marengo, IA (site 5, fig. 1)													
10-16-96	0939	regular	.03	.03	.30	.06	2.0	.22	<.01	<.01	2.9	>5.0	69
11-14-96	0925	do.	.06	.03	.30	1.7	1.2	.42	.12	.11	2.7	.6	424
12-10-96	0935	do.	.06	.02	.40	9.5	.40	.14	.11	.11	2.7	.6	44
01-14-97	1200	do.	.43	.04	.90	7.4	1.1	.43	.40	.37	4.2	.1	17
02-13-97	0949	do.	.41	.06	.70	5.2	.60	.24	.23	.24	3.0	.5	11
03-19-97	0955	do.	.40	.08	1.2	4.2	2.2	.63	.24	.26	7.4	4.3	403
04-10-97	1557	do.	.02	.02	.30	9.2	.90	.30	.15	.16	3.5	2.1	221
05-06-97	0914	do.	<.02	.04	.37	10	1.4	.46	.12	.12	420	3.1	479
06-05-97	1402	do.	<.02	.03	<.20	8.1	1.8	.42	.03	.05	2.4	4.3	64
06-24-97	1000	do.	.02	.13	.70	9.2	1.9	.61	.14	.14	5.5	>5.0	613
07-10-97	1343	do.	<.02	.02	.38	11	1.4	.51	.16	.16	3.1	3.9	366
08-05-97	1334	do.	<.02	.03	.29	5.5	1.2	.27	.12	.13	3.1	3.0	128
09-08-97	1043	do.	<.02	.02	.29	.48	1.5	.28	.02	.01	3.0	2.0	159
10-08-97	0937	do.	<.02	<.01	.46	<.05	1.7	.34	<.01	<.01	3.7	>5.0	110
10-08-97	0942	replicate	<.02	<.01	.47	<.05	1.8	.35	<.01	<.01	3.6	>5.0	--
11-05-97	0936	regular	<.02	.01	.19	6.4	2.0	.13	.12	.13	2.2	.3	40
12-03-97	0930	do.	<.02	.02	.16	4.8	.29	.14	.08	.14	2.4	.6	27
01-07-98	0846	do.	.14	.02	.62	6.7	1.2	.30	.13	.01	3.0	1.3	170
02-19-98	0856	blank	<.02	<.01	<.10	.07	<.10	<.01	<.01	.02	--	--	--
02-19-98	0916	regular	.29	.04	.97	5.8	2.2	.72	.24	.21	7.0	5.1	296

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus nitrite, dissolved (mg/L as N)										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05453100, Iowa River at Marengo, IA (site 5, fig. 1)—Continued													
03-11-98	0855	regular	0.05	0.02	0.40	7.5	0.57	0.17	0.10	0.10	2.5	1.8	81
04-02-98	1355	do.	.08	.04	.58	7.7	1.4	.34	.17	.16	4.6	2.7	236
05-08-98	0843	do.	.03	.03	.39	8.9	1.2	.26	.07	.06	3.0	3.3	206
06-05-98	0900	do.	.03	.04	.28	13	1.2	.36	.13	.12	2.2	3.3	216
06-13-98	0946	do.	.08	.05	.59	8.4	2.9	.90	.15	.14	3.8	>5.0	807
06-26-98	0922	do.	.02	.10	.43	6.3	1.5	.16	.16	.17	4.7	.7	229
07-07-98	0920	do.	.06	.07	.60	5.5	.94	.85	.22	.18	5.2	.6	22
08-07-98	0900	do.	.06	.03	.30	4.6	1.3	.28	.13	.12	3.3	4.1	281
09-04-98	0850	do.	.03	.07	.53	3.9	1.3	.35	.16	.11	2.9	2.4	188
09-04-98	0855	replicate	.03	.08	.69	3.8	1.4	.34	.11	.06	2.9	2.8	158
05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)													
10-07-96	0948	regular	.03	<.01	.30	<.05	.70	.08	.05	.02	4.3	.3	9
11-12-96	0956	do.	.10	.05	.40	2.1	.40	.09	.03	.02	3.7	.4	20
12-02-96	0945	do.	.11	.05	.50	3.6	.50	.09	.02	.02	3.9	.5	39
01-06-97	0938	do.	.52	.07	1.2	3.8	1.3	.07	.01	.01	4.4	.2	7
02-04-97	0919	do.	1.2	.12	3.1	2.3	3.5	1.1	.91	.85	15	1.7	41
03-10-97	1025	do.	.59	.04	2.0	4.4	6.4	2.2	.25	.23	16	>5.0	1,780
04-08-97	1337	do.	.08	.04	.40	2.3	.60	.08	.02	.03	3.8	.5	7
05-01-97	0914	do.	.54	.15	1.4	5.7	3.5	.89	.17	.17	640	.8	550
05-08-97	0903	do.	.37	.09	.96	7.9	5.3	1.9	.12	.11	90	>5.0	2,020
05-27-97	0947	do.	.62	.25	1.5	13	6.3	2.1	.09	.06	8.1	>5.0	2,040
06-03-97	1246	do.	.04	.06	.26	13	.71	.29	.05	.08	2.2	.9	92
07-08-97	1210	do.	<.02	.05	.30	11	.44	.17	.11	.08	2.2	.9	53
08-07-97	1425	do.	.03	.03	.40	.78	.53	.09	.05	.05	4.3	1.1	11

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued													
08-11-97	0908	regular	0.02	0.01	0.43	0.14	0.39	0.04	0.04	0.04	4.2	1.1	32
09-02-97	1545	do.	.08	.09	.53	1.0	1.1	.23	.08	.08	4.6	2.7	63
10-07-97	1330	blank	<.02	<.01	<.20	<.05	<.20	<.01	<.01	<.01	--	--	--
10-07-97	1350	regular	<.02	<.01	.53	<.05	.60	.12	.05	.03	4.5	.4	29
11-04-97	1243	do.	.03	.06	.31	7.9	.45	.12	.08	.08	1.8	.3	20
11-04-97	1248	replicate	.03	.05	.36	8.1	.66	.11	.08	.08	2.8	.3	19
12-02-97	1223	regular	<.02	.06	.24	4.5	.36	.07	.08	.04	3.2	.5	15
01-06-98	1240	do.	.19	.05	.68	10	1.6	.45	.08	.11	3.6	3.6	219
01-06-98	1245	replicate	.18	.05	.68	9.6	1.6	.46	.11	.09	--	--	--
02-18-98	1235	regular	.06	.03	.27	10	.56	.17	.05	.06	2.3	.8	82
03-10-98	1310	do.	.11	.01	.41	9.9	.87	.28	.05	.05	2.5	1.2	154
03-31-98	1245	do.	.02	.11	1.3	6.1	6.8	3.4	.10	<.01	7.7	>5.0	2,950
05-05-98	1343	do.	.05	.04	.26	11	.46	.13	.05	.05	2.5	1.3	125
05-18-98	0805	blank	--	--	--	--	--	--	--	--	.6	<.2	--
05-18-98	0825	regular	.05	.06	.35	13	.68	.22	.09	.04	1.9	1.6	142
05-18-98	0830	replicate	.06	.06	.31	13	.75	.26	.07	.04	1.9	1.9	142
06-02-98	1325	regular	.11	.07	.25	15	1.0	.16	.11	.11	1.8	1.6	132
06-10-98	0826	do.	.10	.09	.47	12	1.6	.52	.15	.12	3.4	--	443
06-30-98	1239	do.	.05	.10	.72	7.8	3.3	1.3	.10	.03	6.1	>5.0	1,070
07-10-98	0745	do.	.02	.14	.57	10	1.0	.24	.07	.06	3.0	1.7	126
07-10-98	0750	replicate	.04	.09	.45	10	1.2	.25	.09	.07	2.5	1.5	125
08-05-98	0810	regular	.07	.06	.39	4.4	.73	.23	.09	.08	3.5	1.4	69
09-01-98	1300	do.	.08	.05	.34	4.9	.76	.22	.13	.11	3.3	1.5	81

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus nitrite, dissolved (mg/L as N)										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05455500, English River near Kalona, IA (site h, fig. 1)													
08-11-97	1417	regular	0.80	0.05	1.4	0.27	2.1	0.46	0.17	0.18	5.2	2.5	79
05-18-98	1430	do.	.06	.05	.34	9.2	.63	.13	.08	.08	2.3	1.8	121
05456510, Turtle Creek at Austin, MN (site j, fig. 1)													
08-27-97	0840	regular	<.02	.08	.74	3.7	1.1	.16	<.01	<.01	7.2	4.5	258
05-19-98	0901	do.	.07	.10	.67	9.4	1.1	.10	<.01	.02	5.1	2.7	109
05457950, Little Cedar River near Floyd, IA (site l, fig. 1)													
08-27-97	1400	regular	<.02	.21	.29	2.0	.33	<.01	.01	<.01	2.4	.8	6
05-18-98	1346	do.	.04	.05	.28	13	.44	.07	<.01	.04	2.0	.6	21
05458870, Maynes Creek near Kesley, IA (site m, fig. 1)													
08-25-97	1500	regular	<.02	.04	.22	3.4	.33	.04	.03	.02	2.1	1.9	56
05-21-98	1221	do.	.07	.04	.41	10	.60	.04	.05	<.01	2.6	1.2	93
09-09-98	0957	do.	.02	.02	.27	6.6	.35	.04	.04	.04	2.4	.6	30
05459300, Winnebago River near Fertile, IA (site o, fig. 1)													
08-26-97	1250	regular	<.02	.02	.44	.44	2.1	.20	<.01	<.01	5.0	2.8	69
05-19-98	1308	do.	.04	.06	.71	13	1.7	.32	.06	.07	--	--	171
05461390, Flood Creek near Powersville, IA (site 7, fig. 1)													
10-23-96	1107	regular	.06	.05	.30	4.4	.80	.18	.05	.07	3.4	.3	87
12-11-96	1150	do.	.02	.03	<.20	8.0	<.20	.05	<.01	.06	1.3	.1	5
01-14-97	0950	do.	<.02	.03	<.20	9.4	<.20	.09	.09	.09	1.2	.3	0
02-19-97	1050	do.	.25	.08	.50	6.3	.80	.18	.17	.19	2.8	.7	7
03-18-97	1018	do.	.54	.06	1.5	3.3	2.3	.59	.33	.32	7.9	2.0	193
Hydrologic and Biologic Data													
04-09-97	1426	blank	<.02	<.01	<.20	.06	<.20	<.01	<.01	<.01	.2	.1	--
04-09-97	1446	regular	.03	.02	<.20	13	.30	.10	.06	.06	1.7	.7	20
05-03-97	1053	do.	.07	.04	.38	14	.99	.21	.09	.12	4.2	.2	108
06-04-97	1310	do.	<.02	.04	<.20	9.8	<.20	.08	.06	.08	1.4	.4	59
07-09-97	1151	do.	<.02	.02	.24	10	.46	.16	.10	.09	1.5	1.2	44

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)—Continued</b>													
08-04-97	1613	regular	<0.02	0.02	0.21	9.6	0.40	0.08	0.09	0.09	1.8	0.6	36
08-25-97	1130	do.	<.02	.07	<.20	8.3	.26	.05	.04	.05	1.6	.4	23
09-04-97	1248	do.	<.02	.07	<.20	7.8	<.20	.12	.06	.06	1.2	.3	7
10-09-97	0823	do.	.04	.18	.53	5.5	.65	.06	.07	<.01	2.2	.3	17
11-06-97	0855	do.	<.02	.04	.12	8.0	.24	.06	.07	.06	1.1	.3	11
12-03-97	0852	do.	<.02	.03	.14	7.7	.11	.05	.06	.07	1.2	1.0	21
01-07-98	0902	do.	<.02	.06	.27	6.1	.19	.05	.05	.08	1.6	.5	2
02-19-98	0948	do.	.96	.08	2.3	6.1	2.9	1.1	.98	.93	16	3.0	86
03-13-98	0850	do.	.04	.02	.13	11	.38	.05	.09	.07	1.2	.3	86
04-02-98	0843	do.	.07	.03	.51	17	1.2	.24	.14	.14	3.0	1.9	132
05-06-98	0838	do.	.02	.03	.25	13	.19	.07	.06	.07	1.4	.6	33
05-18-98	0944	blank	--	--	--	--	--	--	--	--	.3	.2	--
05-18-98	1004	regular	.02	.04	.17	12	.23	.10	.07	.09	1.3	.7	23
06-03-98	0906	do.	.08	.05	.20	16	.62	.09	.06	.08	1.5	1.4	75
07-08-98	0848	do.	<.02	.14	.61	12	.73	.12	.04	.02	1.5	.9	60
08-05-98	0837	do.	.06	.04	.23	8.4	.37	.10	.08	.10	1.4	1.2	21
09-02-98	0842	do.	<.02	.02	.13	9.4	.23	.11	.10	.09	1.4	.5	10
09-02-98	0847	replicate	<.02	.02	.15	9.4	.23	.10	.10	.08	1.2	.4	--
<b>05462770, Beaver Creek near Parkersburg, IA (site p, fig. 1)</b>													
08-19-97	1235	regular	.03	.04	.23	6.0	.54	.07	.04	.05	2.1	.6	55
05-21-98	0848	do.	<.02	.13	.40	12	.57	.02	<.01	<.01	2.1	.6	109
<b>05463510, Black Hawk Creek at Waterloo, IA (site q, fig. 1)</b>													
08-20-97	0910	regular	<.02	.03	<.20	3.5	.28	.09	.07	.06	2.6	.5	19
05-20-98	1253	do.	.04	.06	.27	14	.53	.12	.07	.07	1.7	1.8	71

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)													
10-15-96	1120	regular	0.03	0.04	0.30	2.3	1.3	0.22	<0.01	<0.01	2.8	3.1	22
11-12-96	1103	do.	.22	.06	.50	6.3	.60	.17	.17	.13	2.5	.7	23
12-12-96	1340	do.	.30	.03	.60	7.1	.70	.14	.11	.12	3.0	.8	41
01-15-97	0855	do.	.69	.05	1.1	6.2	1.3	.22	.21	.20	3.1	.2	5
02-10-97	1015	do.	.80	.06	1.0	5.0	1.3	.24	.19	.23	2.6	.2	13
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)													
10-10-96	1047	regular	<.02	.04	<.20	3.9	.30	.06	.01	.02	3.8	.6	17
11-07-96	1018	do.	.13	.06	.50	9.2	.80	.18	.10	.10	2.2	1.0	82
12-05-96	0959	do.	.09	.03	.20	11	.40	.07	.09	.07	1.7	.5	86
01-13-97	1205	do.	.23	.04	.50	11	.70	.13	.09	.11	2.0	.8	14
01-13-97	1210	replicate	.23	.04	.50	11	.60	.15	.10	.11	--	--	--
02-06-97	0923	regular	.40	.06	.90	6.1	1.1	.33	.28	.29	5.0	.5	13
03-12-97	1035	do.	.27	.04	.70	6.9	1.2	.33	.13	.16	5.0	3.1	127
03-17-97	0945	do.	.24	.03	.70	7.9	1.0	.26	.10	.11	3.8	2.3	109
03-24-97	1026	do.	<.02	.10	.44	8.9	.25	.09	.09	.02	2.2	.9	47
04-02-97	1026	do.	<.02	.03	<.20	9.1	.40	.08	.05	.05	2.3	.4	33
04-08-97	1030	do.	.05	.03	.20	9.6	.30	.11	.06	.07	2.3	1.2	56
04-14-97	1235	do.	<.02	.03	.20	11	.57	.09	.05	.05	2.3	1.0	51
04-21-97	1028	do.	.06	.03	<.20	11	.36	.06	.04	.05	2.1	.8	32
04-28-97	1006	blank	--	--	--	--	--	--	--	--	.8	.1	--
04-28-97	1026	regular	<.02	.04	<.20	9.5	.35	.06	.03	.04	2.0	.3	35
05-05-97	1015	do.	<.02	.03	<.20	16	1.1	.35	.10	.07	550	.3	421
05-12-97	1022	do.	.02	.02	<.20	14	.57	.14	.05	.05	--	--	136
05-19-97	1033	do.	<.02	.03	.20	12	.46	.08	.04	.04	14	.7	76

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
05-27-97	0936	regular	0.04	0.04	0.35	12	0.96	0.14	0.04	0.05	3.8	0.4	91
06-03-97	1116	do.	.02	<.01	<.20	13	.65	.09	.03	.04	2.4	1.0	105
06-09-97	0946	do.	<.02	.04	<.20	14	.94	.19	.06	.06	1.7	2.5	141
06-16-97	0943	do.	.04	.06	.34	12	1.9	.48	.08	.09	4.2	>5.0	543
06-24-97	0951	do.	.34	.10	.56	16	1.4	.29	.14	.10	3.0	>5.0	510
06-30-97	1022	do.	<.02	.06	<.20	15	1.5	.33	.09	.08	2.8	3.9	342
07-14-97	0944	do.	<.02	.04	<.20	13	1.7	.33	.09	.09	1.8	3.2	151
07-28-97	0928	regular	<.02	.06	.30	9.7	.54	.13	.09	.08	2.0	1.2	47
07-28-97	0933	replicate	<.02	.07	.31	10	.53	.14	.10	.08	1.9	1.1	--
08-12-97	0916	regular	.08	.04	.24	4.2	.56	.09	.05	.06	2.8	1.5	32
08-21-97	0840	do.	<.02	.05	.20	3.8	.57	.05	.05	.04	2.4	.5	40
08-25-97	1000	do.	<.02	.07	.64	4.2	.96	.20	.18	.09	4.4	1.5	51
09-09-97	0945	do.	<.02	.07	.45	4.2	.65	.12	.10	.06	3.0	.7	80
09-24-97	0940	do.	<.02	.07	.48	5.4	1.0	.12	.09	.08	3.6	1.4	29
10-10-97	0938	do.	<.02	.07	.57	8.8	1.8	.31	.13	.10	5.0	2.0	133
10-10-97	0943	replicate	<.02	.07	.62	8.5	1.8	.32	.15	.08	5.1	1.2	136
10-21-97	0854	regular	.02	.02	<.20	11	.38	.10	.07	.07	1.5	.9	66
11-07-97	0919	do.	<.02	.03	.25	11	.40	.03	.04	.02	1.6	.4	23
11-18-97	0857	do.	<.02	.02	.21	9.9	.27	.04	.04	.05	1.7	.3	64
12-04-97	0919	do.	<.02	.02	.20	4.8	.26	.06	.04	.05	1.7	.6	26
01-08-98	0910	do.	<.02	.01	.21	11	.26	.05	.03	.04	1.6	1.5	42
01-08-98	0915	replicate	<.02	.01	.21	11	.23	.06	.04	.05	--	--	--
02-20-98	0941	regular	<.02	.01	.28	14	.83	.29	.11	.12	2.0	1.9	136



**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus nitrite plus nitrate, dissolved (mg/L as N)										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
03-18-98	0918	regular	0.11	0.03	0.35	13	0.74	0.16	0.05	0.05	2.5	1.3	103
04-01-98	0945	do.	.12	.04	.73	12	2.0	.66	.20	.19	5.3	>5.0	1,030
05-07-98	0919	do.	.09	.03	.26	14	.20	.08	.03	.03	1.5	1.3	120
05-18-98	1327	do.	.03	.05	.18	14	.62	.10	.05	.04	1.5	2.3	88
06-04-98	0933	do.	.02	.04	.18	16	.84	.22	.07	.07	44	2.3	146
06-10-98	1215	do.	.07	.05	.43	14	2.3	.65	.15	.13	3.0	>5.0	679
06-12-98	1238	do.	.11	.04	.64	5.2	4.2	1.5	.34	.29	5.1	>5.0	947
06-22-98	1415	do.	.04	.05	.43	7.4	2.2	.74	.19	.19	3.8	>5.0	428
07-09-98	0924	do.	.02	.12	.63	14	1.6	.32	.07	.04	1.9	3.2	301
08-06-98	0855	do.	.09	.05	.63	7.6	1.7	.48	.18	.16	4.2	4.8	346
09-03-98	0936	blank	--	--	--	--	--	--	--	--	.3	<.2	--
09-03-98	0956	regular	<.02	.03	.25	8.2	.53	.10	.10	.09	1.9	.6	29
05464935, Cedar River at Nichols, IA (site 10a, fig. 1)													
10-29-96	1030	regular	.03	.04	.30	2.0	2.2	.27	<.01	<.01	3.5	>5.0	76
11-13-96	1013	do.	.16	.02	.60	1.1	.90	.18	.10	.09	3.1	1.6	21
12-05-96	1030	do.	.20	.03	.60	8.0	.90	.21	.12	.13	3.5	1.2	22
01-22-97	0950	do.	.78	.03	1.4	5.9	1.4	.24	.23	.23	3.4	.3	12
01-22-97	0955	replicate	.78	.04	1.3	6.0	1.5	.28	.24	.23	3.3	.4	--
02-03-97	0938	regular	.94	.05	1.5	4.9	1.7	.31	.28	.26	4.6	.8	14
03-13-97	0950	do.	.62	.03	1.4	3.4	3.0	.82	.21	.20	8.6	--	414
04-07-97	0921	do.	.07	.04	.99	3.8	.42	.15	.31	.21	4.2	1.4	507
05-07-97	0933	do.	<.02	.02	.33	9.8	1.3	.25	.06	.07	3.6	2.3	105
06-02-97	0838	do.	.02	.02	.29	6.8	1.9	.23	<.01	<.01	3.0	5.0	76

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
06-17-97	1418	regular	<0.02	0.03	0.24	4.1	1.6	0.24	<0.01	<0.01	4.5	>5.0	122
07-07-97	0902	do.	<.02	.03	.46	8.2	1.7	.37	.14	.13	3.3	4.5	134
08-06-97	1110	do.	<.02	.03	.58	5.0	2.0	.27	.05	.05	4.3	5.0	96
09-03-97	0834	do.	<.02	.02	.33	.42	2.6	.32	.01	.02	3.4	>5.0	94
10-09-97	1232	do.	.05	.01	.47	.34	2.6	.39	.02	.01	4.0	>5.0	154
11-06-97	1302	do.	<.02	.02	.31	6.6	.59	.17	.12	.16	2.4	1.0	31
12-04-97	1230	do.	<.02	.02	.24	5.1	.88	.16	.12	.13	2.4	2.2	12
01-08-98	1233	do.	.10	.02	.44	7.4	.81	.22	.12	.13	2.9	.6	46
02-20-98	1156	do.	.10	.02	.54	7.2	1.2	.41	.21	.19	3.7	2.9	86
03-12-98	1200	do.	.09	.02	.52	9.8	.76	.22	.16	.14	2.7	.9	38
04-03-98	0851	do.	.10	.04	.69	9.2	1.7	.44	.18	.17	4.6	4.3	253
05-07-98	0827	do.	<.02	.01	.39	9.2	.34	.06	.06	.07	2.8	1.1	81
06-04-98	0900	do.	.03	.03	.33	12	1.5	.34	.15	.12	2.6	4.8	154
07-06-98	0847	do.	.05	.06	.54	8.4	1.0	.33	.22	.18	4.7	2.1	1,210
08-04-98	1300	do.	<.02	.03	.44	2.7	2.5	.26	<.01	.01	3.2	>5.0	61
09-03-98	0840	do.	<.02	.02	.31	3.6	1.8	.26	.09	.07	3.7	>5.0	105
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	<.02	.01	.30	.16	2.6	.27	<.01	<.01	2.2	>5.0	40
10-10-96	1020	replicate	<.02	.01	.31	.14	2.7	.27	.01	<.01	4.0	>5.0	42
10-29-96	0855	regular	.03	.05	.31	2.2	2.3	.26	<.01	<.01	3.8	4.8	75
<b>05465310, Long Creek near Columbus Junction, IA (site r, fig. 1)</b>													
08-12-97	1430	regular	.14	.02	.53	.68	1.0	.18	.05	.06	4.6	2.0	72
05-20-98	1442	do.	.04	.08	.32	13	.49	.08	.06	.06	2.4	.8	45

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)													
10-08-96	1155	regular	0.02	<0.01	0.20	0.06	2.6	0.32	0.04	<0.01	4.4	>5.0	55
11-06-96	1038	do.	.03	.03	.30	3.9	1.2	.23	.09	.07	3.5	2.9	58
12-03-96	1040	do.	.25	.01	.62	7.3	1.0	.20	.12	.12	3.5	2.2	46
01-07-97	1115	do.	.38	.03	.80	6.9	1.0	.21	.17	.16	3.0	.4	28
01-07-97	1120	replicate	.39	.04	.80	7.2	.90	.21	.16	.16	--	--	--
02-05-97	1030	regular	.84	.10	2.1	3.6	2.1	.44	.48	.47	5.8	1.2	28
03-11-97	1220	do.	.61	.03	1.3	3.1	2.5	.78	.25	.23	7.4	>5.0	1,010
03-11-97	1225	replicate	.63	.03	1.3	3.1	3.0	1.1	.21	.20	7.3	>5.0	951
03-20-97	0918	regular	.59	.05	1.3	3.2	2.0	.39	.18	.18	7.2	1.9	158
03-27-97	0941	do.	.33	.02	.89	3.7	1.5	.43	.23	.20	6.4	2.7	105
03-31-97	0936	do.	.21	.05	.80	4.3	1.2	.36	.24	.18	6.2	2.0	153
04-10-97	0922	do.	.02	.02	.30	3.7	.90	.29	.13	.14	4.0	3.3	84
04-16-97	0931	do.	<.02	.02	.30	6.8	1.1	.29	.10	.12	3.9	1.8	69
04-23-97	0945	do.	.06	.01	.28	6.3	1.5	.26	.06	.06	3.1	4.6	101
04-30-97	0956	do.	<.02	.02	.27	4.3	2.0	.22	<.01	<.01	3.4	>5.0	79
05-07-97	0920	do.	<.02	.02	.23	8.8	1.4	.30	.05	.08	170	1.0	253
05-14-97	0955	do.	.13	.02	.31	8.5	1.3	.26	.10	.08	3.1	1.6	128
05-21-97	1028	do.	.03	.04	.34	6.6	3.4	.83	.07	.07	22	>5.0	670
05-29-97	1029	blank	<.02	<.01	<.20	.08	<.20	<.01	<.01	<.01	--	--	--
05-29-97	1049	regular	.02	.04	.40	7.7	1.6	.31	.07	.05	30	3.0	236
06-05-97	0940	do.	<.02	.03	<.20	6.3	1.5	.20	<.01	<.01	3.1	>5.0	121
06-12-97	0906	do.	<.02	.02	.31	4.7	1.8	.24	<.01	<.01	4.5	3.8	141
06-19-97	0908	do.	<.02	.03	.31	4.6	1.4	.29	.03	.04	3.8	>5.0	213

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
06-25-97	0955	regular	0.03	0.04	0.28	6.3	0.98	0.36	0.13	0.10	3.3	>5.0	354
07-02-97	0912	do.	.02	.07	.41	7.9	1.8	.51	.19	.17	4.6	>5.0	256
07-16-97	0941	do.	<.02	.02	<.20	6.6	1.6	.33	.06	.07	3.1	>5.0	174
07-31-97	0927	do.	<.02	.05	.39	4.8	2.1	.29	.01	.02	4.1	5.2	127
08-13-97	0918	do.	<.02	.03	.31	2.2	2.2	.29	.02	.02	3.4	>5.0	81
08-28-97	0919	do.	<.02	.02	.27	.44	1.7	.26	.01	<.01	3.4	>5.0	114
09-05-97	0906	do.	<.02	.02	.32	1.0	1.3	.40	.04	.04	3.7	>5.0	181
09-23-97	0936	do.	<.02	<.01	.26	.31	2.0	.32	<.01	.01	2.9	>5.0	127
10-06-97	1030	blank	--	--	--	--	--	--	--	--	.3	<.2	--
10-06-97	1050	regular	<.02	<.01	.47	<.05	3.0	.35	<.01	<.01	3.4	>5.0	71
10-22-97	0951	do.	<.02	<.01	.30	5.7	.49	.15	.13	.14	3.2	1.9	85
11-03-97	0953	do.	.04	.02	.47	5.4	.95	.26	.13	.15	--	1.2	94
11-19-97	0935	do.	<.02	.02	.27	4.9	.60	.19	.11	.11	2.5	1.3	13
12-01-97	0928	do.	<.02	<.01	.22	4.6	.85	.19	.08	.11	2.8	3.4	36
01-05-98	0938	do.	.15	.04	.61	7.1	1.6	.47	.10	.08	3.5	3.8	305
02-17-98	0936	do.	.18	.02	.54	6.6	1.1	.26	.17	.15	4.1	.6	87
03-09-98	1000	do.	.10	.03	.60	8.8	1.3	.40	.19	.16	4.3	4.7	392
03-30-98	0905	do.	.05	.03	.34	9.9	1.2	.35	.12	.12	3.9	2.6	200
04-04-98	1020	do.	.04	.05	.72	10	2.1	.35	.16	.13	4.4	3.5	181
05-04-98	0909	do.	.03	.02	.26	9.9	.72	.16	.07	.08	3.0	2.6	109
05-27-98	1148	do.	.06	.05	.29	8.0	.36	.07	.05	.01	3.2	>5.0	556
06-01-98	0913	do.	.08	.06	.45	11	1.9	.41	.10	.12	3.0	3.3	207
06-19-98	1002	regular	.09	.06	.52	9.7	1.8	.48	.15	.14	3.4	4.5	400

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued										
			Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
07-02-98	1049	regular	0.05	0.13	0.67	7.9	1.2	0.32	0.18	0.15	4.6	1.9	101
08-03-98	0925	do.	<.02	.05	.40	2.2	1.1	.21	.03	.05	4.1	3.8	109
08-31-98	0940	do.	.04	.07	.42	3.6	1.5	.46	.16	.14	4.6	4.8	193
05469980, South Skunk River near Story City, IA (site s, fig. 1)													
08-18-97	1430	regular	.03	.03	.44	2.7	.45	.18	.17	.16	3.7	.3	15
05-21-98	0743	do.	.08	.12	.75	14	.82	.10	.08	.02	2.9	.6	86
05471120, East Branch Indian Creek near Iowa Center, IA (site t, fig. 1)													
08-18-97	1057	regular	.04	.02	.33	.29	1.1	.12	.04	.04	5.6	.6	37
05-21-98	1137	do.	.05	.14	.49	14	.82	.08	.05	.02	2.8	1.1	86
05473060, Crooked Creek at Coppock, IA (site u, fig. 1)													
08-12-97	1002	regular	1.3	.03	2.1	.17	3.5	.78	.31	.31	7.5	4.4	137
05-19-98	0946	do.	.06	.09	.38	14	.64	.15	.11	.06	2.3	1.2	61
05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)													
08-13-97	1355	regular	<.02	<.01	.41	<.05	1.1	.14	.02	.02	5.5	2.6	48
05-19-98	1449	do.	.05	.03	.41	8.5	.69	.22	.12	.07	3.3	1.0	41
05473550, Big Creek near Lowell, IA (site w, fig. 1)													
08-13-97	0945	regular	.08	.01	.52	.14	1.5	.53	.23	.25	5.9	2.7	330
05-20-98	0838	do.	.06	.09	.39	11	.75	.15	.13	.09	2.6	1.3	39
05474000, Skunk River at Augusta, IA (site 12, fig. 1)													
10-09-96	0940	regular	<.02	<.01	.20	<.05	1.6	.21	.03	<.01	.8	>5.0	133
11-07-96	0909	do.	.06	.04	.30	7.0	.70	.22	.14	.14	4.4	1.4	54
12-04-96	0933	do.	.03	.01	.30	12	.50	.18	.14	.15	2.9	.9	102
01-08-97	0930	do.	.08	.03	.30	10	.50	.12	.09	.11	2.3	.3	17
01-08-97	0935	replicate	.08	.02	.40	10	.40	.10	.10	.10	--	--	--
02-06-97	0857	regular	.79	.06	1.5	4.0	2.5	.62	.38	.36	10	1.4	75
03-12-97	0930	do.	.36	.03	.90	3.4	2.8	.83	.18	.18	5.2	>5.0	593
04-08-97	0840	do.	<.02	.01	.30	4.8	.80	.22	.13	.10	3.1	1.7	36

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Nitrogen, ammonia plus organic, total (mg/L as N) (00625)	Phos- phorus, total (mg/L) (00665)	Phos- phorus, dissolved (mg/L as P) (00666)	Orthophos- phorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)	Suspended organic carbon (mg/L) (00689)	Sediment (mg/L) (80154)
05474000, Skunk River at Augusta, IA (site 12, fig. 1)—Continued													
05-13-97	1110	regular	0.02	0.03	0.36	8.7	1.6	0.56	0.15	0.13	3.2	>5.0	545
05-28-97	1205	do.	.15	.09	.76	8.8	3.5	1.1	.12	.14	7.6	>5.0	1,060
06-03-97	0814	do.	<.02	.02	.29	11	.70	.26	.10	.13	2.5	2.3	204
06-26-97	1515	do.	<.02	.05	.40	13	3.2	1.1	.18	.16	4.0	>5.0	1,050
07-08-97	0804	do.	<.02	.02	.39	11	1.3	.52	.25	.22	3.3	>5.0	323
08-07-97	0930	do.	.02	.03	.36	2.6	1.8	.16	<.01	<.01	3.6	4.8	33
09-02-97	1050	do.	<.02	.02	.43	.27	1.1	.18	.09	.08	4.3	>5.0	129
10-07-97	0903	do.	<.02	<.01	.52	<.05	.81	.22	.03	.02	5.0	3.7	83
11-04-97	0822	do.	<.02	.03	.35	8.1	1.2	.33	.16	.16	3.6	1.6	175
12-02-97	0835	do.	<.02	.04	.43	5.0	.81	.21	.11	.15	4.6	1.3	49
01-06-98	0830	do.	.26	.06	.97	8.1	2.4	.72	.14	.12	5.2	>5.0	487
02-18-98	0835	do.	.12	.04	.42	8.2	.84	.26	.13	.12	4.1	1.1	119
03-10-98	0840	do.	.21	.04	.66	6.6	3.5	1.2	.15	.14	5.5	>5.0	1,030
03-31-98	0824	do.	.09	.04	.57	4.8	4.2	1.4	.13	.13	6.9	>2.5	2,780
05-05-98	0830	do.	.03	.03	.27	8.9	.93	.33	.11	.10	3.8	1.4	206
05-26-98	1200	do.	.15	.11	.84	7.9	3.2	.90	.13	.04	18	>5.0	875
06-02-98	0820	do.	.07	.08	.45	10	4.3	.97	.16	.17	3.5	>5.0	747
06-18-98	1044	do.	.05	.07	.51	8.3	1.5	.50	.14	.15	4.8	4.1	358
07-08-98	0930	do.	.03	.07	1.3	4.7	2.1	.56	.25	.13	5.2	>5.0	457
08-04-98	0810	do.	<.02	.02	.30	4.7	.95	.30	.16	.15	3.1	3.3	131
09-01-98	0815	do.	.02	.10	.50	2.2	3.1	.94	.18	.18	5.8	>5.0	673

**Table 12.** Nutrient, dissolved and suspended organic carbon, and sediment concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia plus Nitrogen, nitrite, ammonia plus dissolved dissolved organic, dissolved Nitrite plus nitrate, dissolved Nitrogen, ammonia plus organic, total Phos- phorus, total (mg/L) Phos- phorus, dissolved Orthophos- phorus, total Dissolved organic carbon (mg/L) Suspended organic carbon (mg/L) Sediment (mg/L)								(00608)	(00613)	(00623)	(00631)	(00625)	(00665)	(00666)	(00671)	(00681)	(00689)	(80154)	
424539093372001, Tile drain upstream from Iowa River near Rowan, IA (site x, fig. 1)																						
01-09-97	1020	regular	0.09	0.02	0.30	11	0.30	0.12	0.13	0.14	--	--	--									
04-22-97	1004	do.	.08	<.01	<.20	14	.25	.12	.09	.10	--	--	--									
04-29-97	0933	do.	.93	.02	1.2	14	1.3	.27	.21	.25	--	--	--									
06-17-97	0830	do.	.11	.02	<.20	15	.32	.14	.13	.13	--	--	--									
07-15-97	0850	do.	<.02	.01	<.20	15	.20	.12	.10	.10	--	--	--									
07-29-97	0830	do.	.03	.02	.28	12	.24	.14	.13	.13	--	--	--									
08-11-97	1230	do.	.14	.01	<.20	14	<.20	.16	.13	.14	--	--	--									
08-26-97	0800	do.	<.02	.02	.22	15	<.20	.14	.13	.13	--	--	--									
05-05-98	0830	do.	.18	.02	.38	18	.42	.13	.12	.12	--	--	--									
06-02-98	0915	do.	.15	.03	.27	18	.36	.11	.11	.13	--	--	--									
06-13-98	0920	do.	.05	.02	.28	17	.44	.10	.09	.08	--	--	--									
08-04-98	0830	do.	.07	.03	.13	16	.15	.14	.20	.14	--	--	--									
09-01-98	0818	do.	.12	.02	.20	20	.21	.16	.15	.15	--	--	--									

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than detection limit indicated; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)													
10-09-96	1043	regular	170	48	13	13	2.7	23	24	0.20	3.4	17	77
11-06-96	1058	blank	0	.13	.01	.60	<.10	<.10	<.10	<.10	<.01	<3.0	<1.0
11-06-96	1118	regular	180	51	13	14	2.9	25	27	.10	7.0	29	61
12-04-96	1011	do.	200	59	13	9.8	2.2	28	30	.20	11	13	38
01-08-97	1103	do.	170	51	11	8.8	3.1	24	25	.20	9.8	31	34
01-08-97	1108	replicate	170	50	11	8.7	3.0	24	25	.20	9.6	24	33
02-05-97	1105	regular	200	60	13	14	2.1	27	27	.20	12	52	130
03-17-97	1305	do.	100	29	6.7	4.5	4.4	12	14	.10	7.7	44	85
04-09-97	0858	do.	160	49	10	5.9	2.2	21	21	.19	9.1	10	23
05-05-97	1044	do.	160	46	10	5.7	2.5	23	19	.19	8.3	10	6.4
06-04-97	0934	blank	0	.07	.02	.28	<.10	<.10	<.10	<.10	.17	<3.0	<1.0
06-04-97	0954	regular	150	43	10	6.2	1.3	23	21	.22	3.1	20	14
06-22-97	1130	do.	190	56	12	6.9	2.2	22	17	.20	9.8	22	27
07-09-97	0824	do.	180	53	13	8.2	1.7	23	22	.20	8.8	6.1	44
08-05-97	0819	do.	210	63	13	9.9	2.2	22	22	.23	13	<3.0	11
09-04-97	0944	do.	170	50	11	8.5	3.1	20	20	.20	12	11	11
10-09-97	1208	blank	0	.11	.02	.26	<.10	<.10	<.10	<.10	<.01	41	<1.0
10-09-97	1228	regular	190	55	13	9.5	2.5	22	22	.27	8.8	18	26
11-06-97	1249	do.	200	57	13	9.2	1.6	22	24	.20	11	23	35
12-03-97	1249	do.	190	55	13	11	1.8	24	25	.18	9.6	57	51
01-07-98	1247	do.	180	51	12	19	1.8	37	24	.17	8.3	40	54
02-19-98	1351	do.	110	32	7.3	4.9	8.9	16	11	.12	6.9	130	62
03-13-98	1223	do.	210	62	13	8.3	1.8	24	23	.19	9.8	31	25
04-02-98	1443	do.	140	41	9.0	5.5	3.5	19	15	.17	9.9	39	18



**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)—Continued</b>													
05-06-98	1249	regular	190	56	13	7.9	1.4	22	21	0.15	4.2	28	16
05-19-98	0940	do.	190	55	12	7.2	1.6	22	19	.23	6.8	<10	8.3
05-19-98	0945	replicate	190	56	12	7.3	1.6	22	20	.23	6.9	<10	8.1
05-27-98	1335	regular	210	62	13	7.2	1.9	23	17	.19	11	11	7.3
06-03-98	1450	do.	200	58	13	7.7	1.6	22	18	.21	12	<10	8.7
06-20-98	1030	do.	110	34	7.1	4.0	3.0	11	9.2	.17	8.8	25	7.7
07-08-98	1315	do.	180	53	12	6.7	1.9	17	16	.18	13	11	25
08-05-98	1231	do.	170	51	12	9.1	2.2	17	22	.19	7.1	<10	17
09-02-98	1308	do.	160	48	11	7.4	3.7	17	18	.21	12	29	14
<b>05420720, East Fork Wapsipinicon River near Tripoli, IA (site a, fig. 1)</b>													
05-19-98	1405	regular	210	63	14	16	1.6	32	27	.23	7.0	<10	10
<b>05420900, Little Wapsipinicon River at Littleton, IA (site b, fig. 1)</b>													
05-20-98	0947	regular	230	66	17	7.0	1.4	23	28	.23	5.2	<10	7.6
<b>05421700, Buffalo Creek near Stone City, IA (site c, fig. 1)</b>													
05-21-98	1523	regular	260	75	18	6.2	1.3	18	28	.17	5.4	<10	6.3
<b>05421870, Mud Creek near Donahue, IA (site d, fig. 1)</b>													
05-21-98	1023	regular	310	72	31	9.2	1.0	21	32	.24	11	<10	44
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	150	30	19	10	2.0	19	28	.20	.03	35	5.0
11-13-96	0946	do.	240	65	18	9.9	2.3	22	33	.20	8.7	7.0	11
12-09-96	0924	do.	240	67	18	9.3	2.0	26	34	.20	9.2	5.0	10
01-13-97	1025	do.	230	64	16	8.7	3.8	23	27	.20	10	16	9.0
02-11-97	1017	do.	220	60	17	9.1	3.1	20	29	.20	11	16	27
03-20-97	0920	regular	100	30	7.3	3.7	5.2	10	13	.10	6.9	50	5.0
04-07-97	1335	do.	190	54	13	6.3	2.6	18	24	.18	7.7	6.1	6.1
05-06-97	0937	do.	200	56	14	6.7	2.6	23	25	.20	6.1	3.8	2.2
06-02-97	1304	do.	180	45	16	7.5	1.3	20	27	.16	.68	4.9	2.7

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
06-02-97	1309	replicate	180	45	17	7.6	1.3	20	27	0.16	0.62	9.3	2.5
06-17-97	0935	regular	160	36	18	9.5	1.7	20	26	.18	.66	4.0	<1.0
06-26-97	0933	do.	160	44	12	4.8	3.5	15	16	.23	9.4	5.0	<1.0
07-07-97	1306	do.	220	62	15	6.9	2.1	19	22	.19	9.9	<3.0	1.4
08-06-97	1540	do.	120	28	13	8.8	14	19	23	.18	.25	12	1.5
09-03-97	1210	do.	170	40	17	9.2	3.2	18	25	.18	2.0	3.1	2.3
10-09-97	0907	do.	150	32	17	10	2.4	21	27	.22	.87	12	5.8
11-06-97	0915	do.	230	65	16	8.9	2.0	24	28	.20	10	8.4	8.4
12-04-97	0900	do.	230	64	17	9.8	1.9	24	30	.18	7.8	<10	9.0
01-08-98	0823	blank	0	.17	.01	.50	<.10	<.10	<.10	<.10	.18	<10	<4.0
01-08-98	0843	regular	250	67	20	10	2.3	26	32	.19	10	<10	15
02-20-98	0842	do.	230	63	19	9.0	2.7	23	29	.16	8.7	16	10
03-12-98	0850	do.	230	64	17	7.7	1.5	23	27	.18	9.0	<10	9.1
04-02-98	0900	do.	140	38	11	4.2	4.8	13	16	.20	10	20	15
05-06-98	0925	do.	220	61	17	7.9	1.4	21	26	.21	4.0	<10	4.9
06-03-98	0915	do.	200	56	14	5.5	2.8	17	18	.22	10	<10	<4.0
06-17-98	1300	do.	190	53	14	5.3	3.2	15	<.10	.21	11	<10	<4.0
07-09-98	0855	do.	170	50	12	5.3	3.1	12	13	.19	13	<10	6.6
08-06-98	0900	do.	160	34	18	9.2	1.9	18	26	.16	3.0	11	6.4
09-02-98	0915	do.	170	49	12	6.1	3.8	13	17	.17	11	<10	<4.0
<b>05449200, East Branch Iowa River at Belmond, IA (site e, fig. 1)</b>													
05-20-98	0856	regular	340	86	29	7.3	1.6	25	40	.32	16	<10	25
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	310	76	29	11	2.3	23	54	.30	12	5.0	69
10-08-96	1015	replicate	310	76	30	12	2.3	23	54	.28	12	5.4	69
11-05-96	0935	regular	370	97	31	8.1	1.8	19	41	.30	22	6.0	57

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)													
12-03-96	0928	regular	380	100	32	7.2	1.7	19	34	0.40	23	3.0	32
01-09-97	0950	do.	350	93	28	8.0	2.6	20	36	.40	21	11	67
02-04-97	1015	do.	260	68	21	7.3	3.9	16	34	.30	16	18	81
03-11-97	0950	do.	110	32	7.8	2.1	6.7	5.8	7.5	.18	9.0	50	238
03-18-97	0856	do.	150	43	11	3.0	5.2	9.1	15	.20	12	31	86
03-25-97	0908	do.	180	49	13	3.0	4.6	10	17	.30	14	22	31
04-03-97	0847	do.	290	80	22	5.0	2.6	15	33	.30	19	11	66
04-09-97	0854	do.	320	86	25	5.6	2.1	17	31	.32	19	10	30
04-15-97	0925	do.	330	88	26	6.4	1.8	17	35	.33	18	6.0	55
04-22-97	0944	do.	350	92	29	6.6	1.9	19	37	.32	18	9.6	70
04-29-97	0913	do.	340	89	29	7.5	1.9	19	38	.32	15	14	72
05-03-97	1046	do.	340	93	27	5.1	1.7	18	25	.30	20	4.0	20
05-13-97	0951	do.	330	88	27	5.7	1.5	18	29	.31	17	8.9	24
05-20-97	0853	do.	340	89	28	6.0	1.5	17	29	.32	15	6.7	40
05-28-97	0933	do.	330	86	27	6.4	1.4	19	32	.33	17	6.2	30
06-04-97	0921	do.	330	87	28	6.7	1.4	20	35	.30	14	7.1	46
06-10-97	0919	do.	330	85	28	7.0	1.6	20	38	.31	16	4.8	44
06-17-97	0858	do.	330	85	29	8.2	1.8	21	40	.31	19	3.5	39
06-23-97	1156	do.	150	40	11	2.2	2.5	7.3	8.0	.22	13	25	11
07-01-97	0905	do.	310	83	25	4.9	1.7	17	21	.34	23	23	13
07-15-97	0850	do.	330	87	28	6.6	1.9	17	35	.31	22	3.9	8.7
07-29-97	0900	do.	320	86	26	6.5	1.9	17	28	.37	25	<3.0	22
08-11-97	1200	do.	270	60	28	12	2.0	24	51	.24	11	<3.0	47
08-26-97	0837	do.	300	74	28	10	2.5	19	54	.25	16	20	172
09-11-97	1005	do.	340	86	29	9.7	2.8	18	61	.26	23	14	202

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>													
09-25-97	0852	regular	330	87	28	14	2.9	28	61	0.25	21	3.3	109
10-08-97	0948	do.	360	91	33	15	3.3	28	62	.22	23	5.4	261
10-20-97	1134	do.	350	90	31	10	2.9	22	53	.25	21	<3.0	198
11-05-97	0857	do.	320	79	29	14	2.9	27	56	.28	16	40	113
11-17-97	1134	do.	350	91	31	15	2.7	34	63	.20	17	36	105
12-02-97	0908	do.	320	81	28	11	2.5	21	56	.26	14	24	104
01-06-98	0919	do.	330	86	29	12	2.5	23	55	.29	15	15	167
02-18-98	0924	do.	130	37	10	4.2	8.8	12	12	.18	12	48	164
03-12-98	0926	do.	370	98	30	10	2.3	23	45	.30	22	<10	128
03-31-98	0922	do.	320	86	25	5.7	2.2	20	31	.35	20	<10	30
05-05-98	0922	do.	330	84	28	7.5	1.7	22	36	.35	15	12	52
05-20-98	1223	do.	340	88	29	7.8	1.8	22	36	.34	18	<10	53
05-20-98	1228	replicate	340	88	29	7.8	1.8	22	36	.32	18	<10	54
06-02-98	0904	regular	350	91	29	7.1	1.7	22	34	.36	21	<10	21
06-13-98	0928	do.	340	90	27	5.8	1.5	22	27	.39	21	<10	7.8
06-23-98	0848	do.	190	52	14	2.9	3.2	10	11	.24	19	<10	43
07-07-98	0900	do.	310	84	25	6.9	1.9	17	27	.37	24	<10	46
07-07-98	0905	replicate	290	79	24	6.3	1.9	17	27	.37	23	<10	37
08-04-98	0903	regular	300	74	28	8.2	2.5	16	54	.26	17	<10	56
09-01-98	0944	do.	360	95	31	8.9	3.3	19	46	.28	26	<10	49
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>													
09-10-98	1030	regular	390	99	34	7.0	2.4	16	66	.27	24	<10	68
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>													
10-07-96	1215	regular	250	56	26	11	3.6	21	27	.30	4.5	24	73
11-04-96	1210	do.	350	92	30	7.3	1.6	22	26	.40	18	11	25
12-02-96	1155	do.	380	100	31	7.1	1.7	22	25	.40	21	5.0	14

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued													
01-06-97	1133	regular	160	45	12	4.1	7.6	13	12	0.30	11	48	25
02-03-97	1108	do.	170	46	14	5.1	6.0	12	15	.20	10	41	21
03-10-97	1155	do.	200	56	14	4.5	5.6	12	13	.24	13	26	89
03-10-97	1200	replicate	190	54	14	4.1	5.5	12	13	.24	13	25	83
04-10-97	0904	regular	350	94	28	5.9	1.2	22	25	.34	16	5.0	13
04-10-97	0909	do.	350	94	28	5.5	1.2	22	25	.37	16	3.4	12
05-15-97	1157	do.	370	100	30	5.9	1.0	22	24	.33	15	7.2	17
05-22-97	0930	do.	320	80	30	6.3	.99	22	22	.36	4.1	17	17
06-05-97	0818	do.	310	78	28	5.4	1.0	23	21	.34	7.3	7.9	16
06-21-97	1302	do.	150	42	11	2.3	4.2	7.1	6.9	.20	11	12	15
07-10-97	0824	do.	340	91	27	5.1	1.5	18	19	.36	22	<3.0	5.6
08-04-97	1017	do.	260	61	27	7.1	2.0	20	27	.32	11	4.4	23
09-10-97	0830	do.	260	59	27	8.7	2.6	15	24	.33	13	4.8	48
10-07-97	1054	do.	290	68	30	9.7	3.2	15	21	.37	9.9	11	192
11-04-97	1120	do.	270	61	28	10	2.9	20	29	.32	2.8	43	83
12-01-97	1128	do.	290	71	28	12	4.4	22	30	.32	3.4	79	75
01-05-98	1154	do.	310	77	28	10	2.1	21	30	.34	5.9	41	49
02-17-98	1058	do.	180	50	14	5.2	7.4	16	12	.22	12	42	87
03-11-98	0936	do.	360	94	30	7.5	1.6	22	26	.29	15	<10	49
03-30-98	1113	do.	340	90	27	7.9	1.9	24	26	.34	17	<10	9.0
03-30-98	1118	replicate	330	88	27	7.7	1.9	25	26	.34	17	<10	10
04-01-98	1033	regular	340	91	27	8.0	1.6	27	26	.35	18	<10	9.6
05-04-98	1120	do.	340	85	30	6.9	1.2	23	25	.37	10	45	13
05-22-98	0656	do.	320	81	29	6.4	1.2	22	23	.33	11	<10	18
05-29-98	1246	do.	250	69	20	3.8	3.0	15	14	.30	16	<10	13

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Manganese (µg/L as Mn) (01056)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>													
06-01-98	1318	regular	360	97	28	5.2	1.5	21	20	0.41	22	<10	5.7
06-12-98	1155	do.	290	80	22	5.0	2.3	18	16	.31	19	<10	13
07-06-98	1213	do.	290	79	22	4.6	1.9	13	14	.40	22	<10	8.9
08-03-98	1046	do.	310	74	30	7.0	2.1	16	24	.38	13	<10	20
08-31-98	1102	do.	340	85	30	7.4	2.4	19	25	.37	21	<10	23
<b>05452020, Salt Creek at Belle Plaine, IA (site g, fig. 1)</b>													
05-18-98	0925	regular	280	74	23	7.7	.86	13	35	.25	10	<10	45
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
10-16-96	0939	regular	190	34	25	15	3.1	22	51	.20	.31	18	15
11-14-96	0925	do.	350	93	28	9.4	1.8	19	39	.30	17	<3.0	68
12-10-96	0935	do.	330	87	27	8.8	1.8	19	37	.30	17	<3.0	12
01-14-97	1200	do.	300	79	25	9.6	4.8	19	37	.30	16	8.0	23
02-13-97	0949	do.	270	70	23	11	3.5	18	37	.20	14	11	40
03-19-97	0955	do.	210	57	16	5.2	5.0	12	20	.20	13	13	11
04-10-97	1557	do.	310	83	24	7.5	2.3	19	32	.31	15	5.0	10
05-06-97	0914	do.	290	76	24	6.6	2.1	18	26	.29	15	9.5	4.7
06-05-97	1402	do.	270	67	24	7.6	1.3	17	31	.28	9.2	<3.0	3.2
06-24-97	1000	do.	170	47	14	4.1	4.1	9.5	14	.23	14	3.2	1.7
07-10-97	1343	do.	300	81	24	6.5	1.9	16	24	.28	19	<3.0	3.6
08-05-97	1334	do.	300	81	24	9.8	2.2	17	35	.27	16	<3.0	3.8
09-08-97	1043	do.	220	46	25	15	2.9	21	47	.23	3.3	4.3	9.6
10-08-97	0937	do.	200	37	27	15	2.8	22	55	.23	.10	10	9.8
10-08-97	0942	replicate	200	36	26	14	2.7	22	55	.23	.07	8.6	6.6
11-05-97	0936	regular	280	72	25	10	2.0	17	39	.26	12	3.9	29
12-03-97	0930	do.	270	69	24	13	2.3	23	42	.24	6.7	11	29
01-07-98	0846	do.	240	60	21	9.9	2.4	19	32	.25	9.5	22	20

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)—Continued</b>													
02-19-98	0856	blank	1	0.27	0.02	0.68	<0.10	<0.10	0.27	<0.10	<0.10	<10	<4.0
02-19-98	0916	regular	200	50	17	7.1	3.6	15	23	.20	10	14	12
03-11-98	0855	do.	270	70	23	9.4	1.8	19	37	.22	13	16	43
04-02-98	1355	do.	180	49	15	5.2	4.3	11	21	.22	13	14	28
05-08-98	0843	do.	260	68	22	7.7	1.6	16	29	.31	10	<10	6.9
06-05-98	0900	do.	290	76	25	7.2	1.2	17	26	.31	16	<10	<4.0
06-13-98	0946	do.	170	46	14	4.5	3.2	9.8	16	.28	12	71	<4.0
06-26-98	0922	do.	180	49	14	4.0	3.9	8.7	12	.22	15	<10	4.9
07-07-98	0920	do.	230	62	18	4.8	3.2	11	16	.31	13	10	25
08-07-98	0900	do.	240	60	21	9.1	2.9	14	32	.23	14	<10	<4.0
09-04-98	0850	do.	310	82	26	10	2.8	17	40	.28	17	<10	32
09-04-98	0855	replicate	310	81	26	10	2.9	17	40	.27	17	<10	31
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
10-07-96	0948	regular	190	47	18	18	3.8	23	34	.20	7.2	100	1,400
11-12-96	0956	do.	230	56	21	23	5.1	34	36	.30	11	32	910
12-02-96	0945	do.	260	62	25	34	4.9	50	42	.20	7.2	31	560
01-06-97	0938	do.	220	57	20	29	4.9	47	36	.20	7.1	52	450
02-04-97	0919	do.	84	22	7.1	13	16	26	11	.20	8.4	110	160
03-10-97	1025	do.	87	23	7.1	6.3	8.0	16	13	.18	9.0	67	181
04-08-97	1337	do.	200	50	19	15	3.4	28	30	.22	7.2	26	302
05-01-97	0914	do.	190	47	17	11	6.2	23	28	.19	8.3	16	366
05-08-97	0903	do.	160	43	14	8.2	4.1	18	22	.20	9.4	13	344
05-27-97	0947	do.	140	37	12	8.6	4.9	18	17	.22	9.7	13	666
06-03-97	1246	do.	200	50	19	8.8	1.1	18	23	.21	11	<3.0	50
07-08-97	1210	do.	230	56	21	12	1.5	20	25	.23	13	23	79

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>													
08-07-97	1425	regular	200	50	18	14	3.7	21	28	0.23	7.2	64	557
09-02-97	1545	do.	160	41	14	16	5.7	19	27	.27	11	3.6	529
10-07-97	1330	blank	--	.14	<.01	.35	<.10	<.10	<.10	<.10	<.01	3.7	<1.0
10-07-97	1350	regular	230	58	21	22	4.8	28	31	.26	7.8	44	1,560
11-04-97	1243	do.	240	58	22	13	2.7	25	28	.23	14	82	144
11-04-97	1248	replicate	230	57	22	13	2.6	25	29	.23	14	51	140
12-02-97	1223	regular	220	53	21	17	2.9	28	31	.20	7.0	28	202
01-06-98	1240	do.	200	49	19	13	3.2	29	25	.22	11	24	224
02-18-98	1235	do.	210	52	20	12	1.5	24	27	.18	10	<10	93
03-10-98	1310	do.	190	47	18	12	1.8	23	25	.19	11	<10	141
03-31-98	1245	do.	110	29	8.9	6.5	5.9	11	12	.19	10	64	482
05-05-98	1343	do.	220	52	21	9.8	1.2	18	24	.24	11	<10	67
05-18-98	0825	do.	220	54	21	9.7	1.1	18	23	.24	12	<10	38
05-18-98	0830	replicate	230	55	21	10	1.1	18	22	.27	13	<10	37
06-02-98	1325	regular	230	56	22	9.8	1.0	19	22	.26	13	<10	33
06-10-98	0826	do.	210	52	20	13	2.7	23	21	.25	12	<10	21
06-30-98	1239	do.	160	40	13	6.6	4.4	12	15	.23	12	<10	59
07-10-98	0745	do.	230	56	22	12	1.7	18	24	.24	16	<10	80
07-10-98	0750	replicate	230	56	22	12	1.7	17	24	.25	17	<10	78
08-05-98	0810	regular	210	49	20	13	1.9	21	27	.25	19	<10	249
09-01-98	1300	do.	220	55	21	12	3.2	17	25	.22	17	<10	124
<b>05455500, English River near Kalona, IA (site h, fig. 1)</b>													
05-18-98	1430	regular	190	49	17	8.8	1.4	13	25	.23	12	<10	28
<b>05456510, Turtle Creek at Austin, MN (site j, fig. 1)</b>													
05-19-98	0901	regular	340	89	29	6.7	1.9	18	43	.30	13	25	87



**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05457950, Little Cedar River near Floyd, IA (site l, fig. 1)													
05-18-98	1346	regular	240	68	16	6.6	1.2	22	23	0.24	5.8	11	11
05458870, Maynes Creek near Kesley, IA (site m, fig. 1)													
05-21-98	1221	regular	310	81	27	5.8	1.3	18	34	.27	12	<10	13
09-09-98	0957	do.	330	86	28	6.2	1.8	14	40	.25	15	<10	13
05459300, Winnebago River near Fertile, IA (site o, fig. 1)													
05-19-98	1308	regular	330	88	28	8.1	2.2	24	41	.35	18	<10	12
05461390, Flood Creek near Powersville, IA (site 7, fig. 1)													
10-23-96	1107	regular	200	59	12	3.5	1.8	8.0	22	.10	9.3	7.0	14
12-11-96	1150	do.	230	70	13	4.2	1.4	13	20	.10	9.6	<3.0	6.0
01-14-97	0950	do.	240	73	14	4.3	1.6	14	21	.10	10	<3.0	5.0
02-19-97	1050	do.	190	57	11	3.2	2.4	9.7	18	.10	7.2	5.0	12
03-18-97	1018	do.	83	24	5.6	2.1	4.3	9.3	5.8	.20	6.0	21	10
04-09-97	1426	blank	--	.10	<.010	.25	<.10	<.10	<.10	<.10	<.01	<3.0	<1.0
04-09-97	1446	regular	250	72	17	5.7	1.5	19	16	.20	9.4	<3.0	7.1
05-03-97	1053	do.	250	70	17	5.6	1.9	21	14	.20	9.9	<3.0	4.3
06-04-97	1310	do.	240	70	15	5.0	1.7	16	17	.17	9.1	<3.0	3.8
07-09-97	1151	do.	250	75	16	5.1	1.6	16	16	.15	11	18	5.7
08-04-97	1613	do.	260	82	14	5.0	1.9	14	16	.15	13	23	5.3
09-04-97	1248	do.	230	73	13	4.5	1.7	12	18	.12	8.6	<3.0	8.8
10-09-97	0823	do.	220	69	12	3.9	2.1	11	19	.16	12	5.8	11
11-06-97	0855	do.	240	73	13	4.5	1.8	12	20	.19	12	11	8.9
12-03-97	0852	do.	220	67	13	4.3	1.7	11	21	.13	8.8	<3.0	7.7
01-07-98	0902	do.	220	64	13	4.6	1.5	11	22	.17	8.0	<10	6.9
02-19-98	0948	do.	130	37	10	4.0	9.6	15	7.8	.16	7.2	35	23
03-13-98	0850	do.	250	76	14	5.2	2.2	16	18	.15	10	<10	6.9
04-02-98	0843	do.	230	64	16	5.8	1.9	21	13	.23	10	<10	<4.0
05-06-98	0838	do.	250	74	16	5.8	1.6	19	17	.13	9.4	<10	5.5

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)—Continued</b>													
05-18-98	1004	regular	240	72	15	5.1	1.9	17	18	0.18	9.6	<10	<4.0
06-03-98	0906	do.	260	75	18	5.7	1.3	18	15	.21	11	<10	<4.0
07-08-98	0848	do.	250	74	16	5.8	1.6	16	15	.16	12	<10	6.9
08-05-98	0837	do.	220	68	12	4.2	2.1	12	16	.15	11	<10	6.8
09-02-98	0842	do.	240	76	13	5.0	1.9	14	18	.14	12	<10	<4.0
09-02-98	0847	replicate	230	72	13	4.9	1.9	14	18	.14	11	<10	<4.0
<b>05462770, Beaver Creek near Parkersburg, IA (site p, fig. 1)</b>													
05-21-98	0848	regular	310	79	27	10	2.3	24	27	.24	11	<10	13
<b>05463510, Black Hawk Creek at Waterloo, IA (site q, fig. 1)</b>													
05-20-98	1253	regular	260	69	21	8.4	.85	22	26	.27	9.5	<10	6.9
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>													
10-15-96	1120	regular	220	51	22	17	3.2	31	44	.20	.96	17	4.0
11-12-96	1103	do.	280	73	24	15	3.0	28	40	.30	9.9	8.0	16
12-12-96	1340	do.	270	70	22	12	2.1	29	38	.20	12	5.0	7.0
01-15-97	0855	do.	290	78	24	16	4.2	33	41	.30	14	7.0	9.0
02-10-97	1015	do.	260	69	22	17	3.1	29	39	.20	13	10	21
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
10-10-96	1047	regular	270	68	24	11	1.8	18	60	.30	5.6	12	150
11-07-96	1018	do.	260	68	21	8.9	2.2	19	31	.20	11	5.0	36
12-05-96	0959	do.	290	78	24	9.6	1.1	21	33	.30	12	<3.0	45
01-13-97	1205	do.	280	75	23	12	2.1	24	39	.30	13	<3.0	30
02-06-97	0923	do.	180	49	15	6.0	4.6	12	23	.20	9.7	20	25
03-12-97	1035	do.	220	58	18	6.3	4.1	15	29	.21	11	5.9	30
03-17-97	0945	do.	230	61	19	7.9	2.4	16	33	.20	11	3.0	42
03-24-97	1026	do.	260	69	21	8.0	1.5	16	38	.27	11	<3.0	46
04-02-97	1026	do.	260	68	22	7.9	1.1	17	37	.20	8.0	<3.0	50
04-08-97	1030	do.	270	71	23	7.7	1.3	19	30	.25	10	<3.0	37

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
04-14-97	1235	regular	240	62	21	7.5	1.1	18	30	0.26	7.5	5.5	34
04-21-97	1028	do.	260	66	23	7.7	.93	18	33	.24	7.2	5.6	29
04-28-97	1026	do.	270	71	24	8.6	1.0	18	36	.25	5.1	11	36
05-05-97	1015	do.	280	73	23	6.5	1.0	18	24	.23	12	<3.0	9.8
05-12-97	1022	do.	260	68	22	6.9	.70	18	26	.24	8.8	<3.0	8.7
05-19-97	1033	do.	270	71	23	7.2	.75	17	27	.24	6.9	<3.0	9.6
05-27-97	0936	do.	260	66	22	7.5	1.1	17	26	.24	7.7	<3.0	12
06-03-97	1116	do.	270	70	23	7.1	.66	17	28	.24	7.8	<3.0	8.0
06-09-97	0946	do.	280	73	24	6.7	.82	17	26	.25	9.8	<3.0	6.5
06-16-97	0943	do.	220	57	19	6.2	1.7	14	23	.23	9.0	3.0	4.3
06-24-97	0951	do.	240	62	20	5.6	2.0	15	19	.25	15	<3.0	2.2
06-30-97	1022	do.	240	62	21	6.2	.98	17	23	.23	12	<3.0	3.7
07-14-97	0944	do.	250	66	22	6.8	1.2	15	27	.24	12	<3.0	4.6
07-28-97	0928	do.	280	73	23	7.8	1.2	16	38	.29	14	<3.0	13
07-28-97	0933	replicate	280	74	24	7.9	1.2	16	38	.28	14	<3.0	13
08-12-97	0916	regular	240	59	22	15	1.7	23	46	.22	7.7	5.0	68
08-25-97	1000	do.	200	54	16	8.4	4.2	16	29	.22	11	3.9	49
09-09-97	0945	do.	230	62	19	8.7	3.0	17	37	.23	12	3.4	51
09-24-97	0940	do.	250	67	20	9.3	3.9	19	32	.21	11	3.1	56
10-10-97	0938	do.	240	62	20	7.6	4.4	19	23	.27	14	5.5	18
10-10-97	0943	replicate	230	61	19	7.4	4.3	19	23	.27	14	5.2	16
10-21-97	0854	regular	280	75	24	8.1	1.0	19	29	.22	14	<3.0	13
11-07-97	0919	do.	280	74	23	8.3	.86	19	32	.26	12	35	35
11-18-97	0857	do.	290	80	23	8.5	.82	20	33	.20	11	6.5	59
12-04-97	0919	do.	280	72	24	12	1.2	25	29	.23	11	<3.0	27

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
01-08-98	0910	regular	280	72	24	8.7	0.97	19	28	0.26	11	34	25
02-20-98	0941	do.	270	70	23	7.1	1.4	19	23	.24	12	<10	9.2
03-18-98	0918	do.	260	68	22	6.9	1.0	18	26	.21	11	<10	19
04-01-98	0945	do.	170	45	14	4.5	4.0	13	14	.20	13	23	62
05-07-98	0919	do.	270	69	23	7.6	.63	17	25	.31	8.3	<10	9.3
05-18-98	1327	do.	270	72	23	7.2	.60	16	27	.26	9.9	<10	6.3
06-04-98	0933	do.	270	69	23	6.9	.76	17	22	.27	12	<10	<4.0
06-10-98	1215	do.	210	55	18	5.1	2.1	13	15	.26	12	<10	<4.0
06-12-98	1238	do.	68	19	5.1	1.9	4.9	3.8	4.5	.24	8.5	17	<4.0
06-22-98	1415	do.	120	32	9.5	3.3	3.9	7.2	8.8	.19	11	<10	<4.0
07-09-98	0924	do.	250	65	21	8.8	1.5	16	20	.26	14	<10	5.5
08-06-98	0855	do.	200	52	17	6.3	4.3	12	20	.23	13	<10	<4.0
09-03-98	0956	do.	290	74	25	8.8	1.4	17	40	.28	13	<10	29
05464935, Cedar River at Nichols, IA (site 10a, fig. 1)													
10-29-96	1030	regular	200	47	19	29	3.5	40	47	.20	.24	8.0	3.0
11-13-96	1013	do.	300	81	23	28	3.1	38	48	.30	11	8.0	8.0
12-05-96	1030	do.	300	82	24	23	2.9	39	43	.30	13	4.0	4.0
01-22-97	0950	do.	300	79	24	32	4.2	45	47	.20	14	12	12
01-22-97	0955	replicate	290	77	24	32	3.7	46	48	.30	14	10	12
02-03-97	0938	regular	260	71	21	42	4.5	61	47	.30	12	20	15
03-13-97	0950	do.	170	48	13	11	5.5	20	23	.18	9.5	22	3.2
04-07-97	0921	do.	230	64	17	11	3.1	23	31	.22	11	<3.0	3.2
05-07-97	0933	do.	240	67	18	11	2.6	24	28	.23	7.3	<3.0	1.1
06-02-97	0838	do.	230	56	22	15	2.0	29	34	.20	2.8	4.6	<1.0
06-17-97	1418	do.	170	33	21	21	2.4	35	38	.21	.19	3.8	<1.0
07-07-97	0902	do.	250	69	20	14	2.4	28	29	.24	13	<3.0	<1.0

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
08-06-97	1110	regular	240	64	20	18	2.7	31	36	0.23	11	8.8	8.3
09-03-97	0834	do.	160	31	19	23	3.0	35	37	.21	.04	<3.0	<1.0
10-09-97	1232	do.	160	31	21	35	3.1	53	52	.25	.06	5.5	1.3
11-06-97	1302	do.	260	71	21	26	2.5	42	45	.26	9.4	31	6.1
12-04-97	1230	do.	260	67	21	28	2.5	46	46	.25	4.8	11	5.4
01-08-98	1233	do.	260	70	22	24	2.4	42	42	.24	8.7	<10	6.8
02-20-98	1156	do.	250	67	20	21	3.1	38	38	.24	8.8	<10	7.3
03-12-98	1200	do.	260	70	21	18	2.0	35	35	.21	11	<10	6.9
04-03-98	0851	do.	190	51	14	7.8	3.7	20	22	.22	11	20	<4.0
05-07-98	0827	do.	270	71	21	15	1.6	28	33	.20	5.8	<10	<4.0
06-04-98	0900	do.	260	71	21	13	1.9	27	29	.26	11	<10	<4.0
07-06-98	0847	do.	210	57	16	6.4	2.7	15	18	.25	15	<10	<4.0
08-04-98	1300	do.	180	36	21	21	2.4	32	41	.22	2.8	<10	<4.0
09-03-98	0840	do.	240	63	21	18	2.8	28	36	.26	9.5	<10	<4.0
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	160	29	22	41	3.2	57	59	.30	.11	14	3.0
10-10-96	1020	replicate	160	29	22	41	3.5	56	59	.30	.35	15	3.0
10-29-96	0855	regular	200	47	19	32	3.7	43	49	.23	.35	11	3.3
<b>05465310, Long Creek near Columbus Junction, IA (site r, fig. 1)</b>													
05-20-98	1442	regular	260	60	26	10	1.2	17	29	.25	7.2	34	24
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)</b>													
10-08-96	1155	regular	150	29	20	34	3.1	46	54	.20	.13	9.0	3.0
11-06-96	1038	do.	250	63	22	24	3.3	35	46	.30	6.2	6.0	3.0
12-03-96	1040	do.	300	79	25	22	3.1	36	45	.30	12	4.0	4.0
01-07-97	1115	do.	310	83	24	23	2.7	37	44	.30	13	5.0	7.0
02-05-97	1030	do.	220	60	18	25	6.0	39	37	.20	12	26	13
03-11-97	1220	do.	160	44	12	10	6.2	18	23	.17	9.6	21	5.9

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
03-11-97	1225	replicate	160	44	12	10	6.2	18	22	0.17	9.5	19	5.7
03-20-97	0918	regular	150	42	11	6.5	5.1	14	18	.20	9.1	21	9.0
03-27-97	0941	do.	170	47	12	6.9	4.2	15	20	.20	10	12	4.0
03-31-97	0936	do.	170	48	13	7.1	4.0	15	21	.20	10	9.0	<1.0
04-10-97	0922	do.	240	66	19	12	3.0	23	32	.23	11	4.3	3.2
04-16-97	0931	do.	260	69	20	13	2.7	27	34	.26	11	4.0	<1.0
04-23-97	0945	do.	260	68	21	13	2.5	27	36	.25	5.0	4.8	1.7
04-30-97	0956	do.	200	46	21	15	2.5	27	38	.23	.76	4.4	1.7
05-07-97	0920	do.	240	66	19	11	2.7	23	29	.24	7.2	<3.0	<1.0
05-14-97	0955	do.	270	72	21	11	2.2	23	30	.24	8.5	<3.0	1.5
05-21-97	1028	do.	230	60	19	11	2.2	19	29	.25	6.0	<3.0	<1.0
05-29-97	1029	blank	1	.18	.029	.43	<.10	<.10	<.10	<.10	.03	<3.0	<1.0
05-29-97	1049	regular	220	56	20	12	2.1	23	30	.24	5.3	<3.0	1.6
06-05-97	0940	do.	210	49	22	13	1.9	27	33	.24	2.0	6.0	<1.0
06-12-97	0906	do.	200	43	22	15	2.0	27	34	.21	2.5	<3.0	1.3
06-19-97	0908	do.	200	47	21	15	2.4	26	33	.24	1.7	<3.0	<1.0
06-25-97	0955	do.	220	54	20	12	2.3	23	33	.24	6.0	<3.0	<1.0
07-02-97	0912	do.	200	54	16	7.9	3.3	17	20	.24	13	5.8	1.3
07-16-97	0941	do.	240	60	22	14	2.4	25	33	.27	9.7	<3.0	<1.0
07-31-97	0927	do.	230	56	21	17	2.5	29	35	.29	10	<3.0	<1.0
08-13-97	0918	do.	190	44	21	20	2.5	33	39	.23	3.9	<3.0	2.4
08-28-97	0919	do.	180	37	21	25	2.9	36	42	.24	1.6	<3.0	<1.0
09-05-97	0906	do.	150	34	16	22	3.0	32	34	.20	1.8	3.2	<1.0
09-23-97	0936	do.	160	33	19	26	3.0	40	44	.21	.66	<3.0	<1.0
10-06-97	1050	do.	150	27	20	33	3.1	50	47	.21	.06	4.5	3.3

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>													
10-22-97	0951	regular	250	64	21	19	3.5	34	38	0.21	9.3	12	2.0
11-03-97	0953	do.	260	68	21	20	3.1	34	40	.26	9.6	5.1	<1.0
11-19-97	0935	do.	270	68	23	26	2.8	40	45	.19	7.7	<3.0	13
12-01-97	0928	do.	250	65	22	25	2.8	37	47	.21	4.9	40	9.0
01-05-98	0938	do.	230	59	21	26	3.2	44	39	.25	7.9	48	7.3
02-17-98	0936	do.	230	60	20	17	3.0	28	35	.17	9.3	68	7.4
03-09-98	1000	do.	220	59	18	11	2.5	23	28	.23	10	<10	14
03-30-98	0905	do.	250	66	21	11	1.9	23	29	.24	10	<10	<4.0
04-04-98	1020	do.	170	47	14	7.3	3.4	19	22	.19	11	<10	6.1
05-04-98	0909	do.	260	68	22	11	1.7	23	32	.27	8.5	<10	<4.0
05-27-98	1148	do.	230	55	22	13	2.0	22	29	.22	5.0	<10	<4.0
06-01-98	0913	do.	240	63	20	10	2.1	20	25	.26	11	<10	<4.0
06-19-98	1002	do.	200	53	16	7.6	3.2	16	20	.20	12	<10	<4.0
07-02-98	1049	do.	200	55	16	7.3	3.7	15	18	.28	15	<10	<4.0
08-03-98	0925	regular	210	52	21	13	2.9	20	25	.25	6.1	<10	<4.0
08-31-98	0940	do.	220	58	19	14	3.7	21	31	.21	11	<10	<4.0
<b>05469980, South Skunk River near Story City, IA (site s, fig. 1)</b>													
05-21-98	0743	regular	360	92	31	8.7	1.5	27	29	.40	16	<10	15
<b>05471120, East Branch Indian Creek near Iowa Center, IA (site t, fig. 1)</b>													
05-21-98	1137	regular	320	83	27	7.4	1.4	25	21	.32	14	<10	11
<b>05473060, Crooked Creek at Coppock, IA (site u, fig. 1)</b>													
05-19-98	0946	regular	250	60	24	13	1.6	21	32	.29	11	<10	26
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
05-19-98	1449	regular	220	57	20	13	2.2	17	49	.28	9.1	<10	25
<b>05473550, Big Creek near Lowell, IA (site w, fig. 1)</b>													
05-20-98	0838	regular	250	62	24	23	2.4	31	45	.34	1.7	<10	19

**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05474000, Skunk River at Augusta, IA (site 12, fig. 1)													
10-09-96	0940	regular	140	24	19	19	3.8	29	46	0.30	0.05	10	24
11-07-96	0909	do.	290	75	24	15	4.5	26	38	.40	13	5.0	21
12-04-96	0933	do.	370	99	30	12	2.4	27	39	.40	19	<3.0	4.0
01-08-97	0930	do.	360	96	29	14	2.0	28	45	.40	17	3.0	16
02-06-97	0857	do.	160	43	13	13	9.1	25	33	.20	10	66	47
03-12-97	0930	do.	220	60	18	11	5.6	18	39	.22	13	5.3	1.7
04-08-97	0840	do.	300	79	24	12	2.8	22	48	.30	11	3.3	2.2
05-13-97	1110	do.	250	66	20	8.9	2.7	17	35	.29	13	<3.0	<1.0
05-28-97	1205	do.	150	39	13	6.7	4.1	12	22	.27	8.9	12	1.2
06-03-97	0814	do.	260	65	22	9.3	1.9	19	34	.28	13	<3.0	<1.0
06-26-97	1515	do.	210	56	18	5.9	3.0	15	18	.32	16	<3.0	<1.0
07-08-97	0804	do.	280	76	23	7.8	2.4	18	25	.31	19	<3.0	<1.0
08-07-97	0930	do.	210	50	21	10	2.8	18	33	.29	9.6	16	<1.0
09-02-97	1050	do.	200	47	19	17	4.9	22	45	.29	5.6	<3.0	13
10-07-97	0903	do.	200	45	21	18	4.7	25	51	.29	1.0	5.9	59
11-04-97	0822	do.	200	52	18	10	4.1	19	34	.26	12	3.5	1.4
12-02-97	0835	do.	230	59	21	15	4.3	24	46	.26	10	18	9.9
01-06-98	0830	do.	150	37	13	8.6	4.3	19	30	.26	9.2	15	24
02-18-98	0835	do.	180	47	16	11	3.0	21	39	.22	9.5	<10	<4.0
03-10-98	0840	do.	120	31	10	6.1	3.5	13	22	.22	8.0	36	34
03-31-98	0824	do.	130	36	11	5.2	3.2	9.7	17	.22	9.4	48	<4.0
05-05-98	0830	do.	230	60	20	8.7	2.3	16	35	.27	12	<10	<4.0
05-26-98	1200	do.	150	41	12	5.9	4.2	10	19	.25	12	11	<4.0
06-02-98	0820	do.	230	60	20	8.3	2.3	16	25	.30	14	<10	<4.0
06-18-98	1044	do.	170	44	14	5.7	4.3	11	<.10	.27	15	<10	<4.0



**Table 13.** Major ion concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Hardness (mg/L as CaCO <sub>3</sub> ) (00900)	Calcium (mg/L as Ca) (00915)	Magne- sium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Iron (µg/L as Fe) (01046)	Maganese (µg/L as Mn) (01056)
05474000, Skunk River at Augusta, IA (site 12, fig. 1)—Continued													
07-08-98	0930	regular	170	46	14	5.5	3.6	9.2	14	0.27	15	<10	<4.0
08-04-98	0810	do.	280	73	25	11	2.2	15	39	.31	17	<10	<4.0
09-01-98	0815	do.	100	28	8.0	5.1	5.8	6.7	17	.22	9.8	<10	<4.0

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998

[Concentrations are in micrograms per liter. <, less than indicated detected limit; E, estimated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>													
10-09-96	1043	regular	<0.003	<0.002	<0.002	0.093	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004
11-06-96	1058	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-06-96	1118	regular	<.003	.021	.018	.105	<.001	<.002	<.002	<.003	<.003	<.004	.006
12-04-96	1011	do.	<.003	.018	.029	.110	<.001	<.002	<.002	<.003	<.003	<.004	.005
01-08-97	1103	do.	<.003	.017	.031	.120	<.001	<.002	<.002	<.003	<.003	<.004	.005
01-08-97	1108	replicate	<.003	.018	.030	.122	<.001	<.002	<.002	<.003	<.003	<.004	.008
02-05-97	1105	regular	<.003	E.004	.029	.078	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-17-97	1305	do.	<.003	.039	.017	.166	<.001	<.002	<.002	<.003	<.003	<.004	.016
05-05-97	1044	do.	<.003	1.90	.231	.805	<.001	<.002	<.002	<.003	<.003	<.004	.309
04-02-98	1443	do.	<.003	.029	.015	.121	<.001	<.002	<.002	<.003	<.003	<.004	.010
05-06-98	1249	do.	<.003	.122	.022	.143	<.001	<.002	<.002	<.003	<.003	<.004	.015
05-27-98	1335	do.	<.003	.392	.123	1.47	<.001	<.002	<.002	<.003	E.058	<.008	.180
06-03-98	1450	do.	<.003	.228	.102	3.48	<.001	<.002	<.002	<.003	E.350	<.004	.201
06-20-98	1030	do.	<.003	.403	.160	8.56	<.001	<.002	<.002	<.003	E.302	.022	.653
07-08-98	1315	do.	<.003	.028	.023	.656	<.001	<.002	<.002	<.003	<.003	<.004	.027
08-05-98	1231	do.	<.003	.009	.009	.159	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-05-98	1241	spike	.0774	.139	.140	.298	E.285	.114	.119	E.603	E.313	.105	.174
09-02-98	1308	regular	<.003	.022	.018	.220	<.001	<.002	<.002	<.003	<.003	<.004	.015
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	<.003	<.002	.053	.157	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-13-96	0946	do.	<.003	.033	.018	.148	<.001	<.002	<.002	<.003	<.003	<.004	.022
12-09-96	0924	do.	<.003	.009	.012	.109	<.001	<.002	<.002	<.003	<.003	<.004	.008
01-13-97	1025	do.	<.003	.053	.021	.189	<.001	<.002	<.002	<.003	<.003	<.004	.012
02-11-97	1017	do.	<.003	.027	.013	.120	<.001	<.002	<.002	<.003	<.003	<.004	.007

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
03-20-97	0920	regular	<0.003	0.054	0.041	0.184	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.018
05-06-97	0937	do.	<.003	2.30	.040	1.52	<.001	<.002	<.002	<.003	E.044	<.004	.340
04-02-98	0900	do.	<.003	.021	.014	.144	<.001	<.002	<.002	<.003	<.003	<.004	.018
05-06-98	0925	do.	<.003	.080	.008	.119	<.001	<.002	<.002	<.003	<.003	<.004	.009
06-03-98	0915	do.	<.003	1.58	.084	8.19	<.001	<.002	<.002	<.003	E.468	<.020	.626
06-17-98	1300	do.	<.003	.685	.066	5.96	<.001	<.002	<.002	<.003	E.456	<.020	.444
07-09-98	0855	do.	<.003	.058	.020	1.53	<.001	<.002	<.002	<.003	E.046	<.004	.079
08-06-98	0900	do.	<.003	<.002	<.002	.292	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-02-98	0915	do.	<.003	.020	.007	.275	<.001	<.002	<.002	<.003	<.020	<.004	.022
09-02-98	0925	spike	<.003	3.64	3.37	3.88	<.001	<.002	3.43	E5.48	E4.56	<.004	2.71
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	<.003	<.002	<.002	.047	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-08-96	1015	replicate	<.003	<.002	<.002	.047	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-05-96	0935	regular	<.003	.006	<.002	.070	<.001	<.002	<.002	<.003	<.003	<.004	<.004
12-03-96	0928	do.	<.003	E.003	<.002	.054	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-09-97	0950	do.	<.003	.014	E.004	.054	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-04-97	1015	do.	<.003	.019	.007	.053	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-11-97	0950	do.	<.003	.077	.012	.215	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-18-97	0856	do.	<.003	.0489	.009	.261	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-25-97	0908	do.	<.003	.030	.009	.186	<.001	<.002	<.002	<.003	<.010	<.004	.009
04-03-97	0847	do.	<.003	.012	.006	.082	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-09-97	0854	do.	<.003	<.002	<.002	.068	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-15-97	0925	do.	<.003	.004	.005	.050	<.001	<.002	<.002	<.003	<.003	<.004	.006
04-22-97	0944	do.	<.003	.169	.126	.064	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-22-97	0954	spike	.100	.262	.228	.158	E.112	.096	.102	E.240	E.135	.093	.105
04-22-97	0955	do.	.103	.257	.221	.158	E.114	.089	.104	E.253	E.145	.090	.107
04-29-97	0913	regular	<.003	.053	E.004	.064	<.001	<.002	<.002	<.003	<.003	<.004	.008

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-03-97	1046	regular	<0.003	0.567	0.007	0.126	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.039
05-13-97	0951	do.	<.003	.073	.005	.067	<.001	<.002	<.002	<.003	<.003	<.004	.014
05-20-97	0853	do.	<.003	.592	.017	.146	<.001	<.002	<.002	<.003	<.003	E.002	.015
05-28-97	0933	do.	<.003	.038	.007	.054	<.001	<.002	<.002	<.003	<.003	<.004	.009
05-28-97	0943	spike	.102	.142	.111	.162	E.205	.0732	.098	E.264	E.143	.089	.088
06-04-97	0921	regular	E.001	.018	.005	.082	<.001	<.002	<.002	<.003	<.003	<.004	.008
06-10-97	0919	do.	<.003	.015	.004	.262	<.001	<.002	<.002	<.003	<.003	<.004	.006
06-17-97	0858	do.	<.003	.021	.014	1.22	<.001	<.002	<.002	<.003	<.003	<.004	<.004
06-23-97	1156	do.	<.003	.258	.559	6.70	<.001	<.002	<.002	<.003	E.032	<.004	.142
07-01-97	0905	do.	<.003	.079	.035	.895	<.001	<.002	<.002	<.003	<.003	<.004	<.004
07-15-97	0850	do.	<.003	.070	.013	.410	<.001	<.002	<.002	<.003	<.003	<.004	.013
07-29-97	0900	do.	<.003	.007	.005	.325	<.001	<.002	<.002	<.003	<.003	<.004	.006
08-11-97	1200	do.	<.003	<.002	<.002	.053	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-26-97	0837	do.	<.003	.023	.009	.498	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-26-97	0847	spike	<.003	3.01	5.76	10.4	<.001	<.002	2.06	E1.28	E1.45	<.004	3.02
09-11-97	1005	regular	<.003	.005	E.004	.040	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-25-97	0852	do.	E.001	<.002	E.003	.027	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-08-97	0928	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-08-97	0948	regular	<.003	<.002	E.003	.025	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-20-97	1134	do.	<.003	.007	E.002	.047	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-05-97	0857	do.	<.003	.005	<.002	.026	<.020	<.002	<.002	<.003	<.003	<.004	<.004
11-17-97	1134	do.	<.003	<.002	<.002	.026	<.001	<.002	<.002	<.003	<.003	<.004	<.004
12-02-97	0908	do.	E.001	.007	E.004	.023	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-06-98	0919	do.	<.003	.007	<.002	.027	<.100	<.002	<.002	<.003	<.003	<.004	<.004
01-06-98	0929	spike	.068	.112	.113	.129	E.262	.077	.096	E.165	E.150	.079	.110
02-18-98	0924	regular	<.003	.130	.023	.144	<.001	<.002	<.002	<.003	<.0200	<.004	<.004

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>													
03-12-98	0926	regular	<0.003	0.006	<0.002	0.041	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004
03-31-98	0922	do.	<.003	.009	.007	.069	<.001	<.002	<.002	<.003	<.003	<.004	.004
05-05-98	0922	do.	<.003	.109	.007	.060	<.001	<.002	<.002	<.003	<.003	<.004	.008
06-02-98	0904	do.	<.003	.055	.008	.467	<.001	<.002	<.002	<.003	E.012	<.004	.011
06-13-98	0928	do.	<.003	.110	.007	.387	<.001	<.002	<.002	<.003	E.038	<.004	.016
06-23-98	0848	do.	<.003	.921	.064	3.97	<.001	<.002	<.002	<.003	E.089	<.004	.099
07-07-98	0900	do.	<.003	.027	.012	.549	<.001	<.002	<.002	<.003	<.003	<.004	<.004
07-07-98	0905	replicate	<.003	.026	.012	.579	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-04-98	0903	regular	<.003	.007	<.002	.073	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-01-98	0944	do.	<.003	.007	E.002	.092	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>													
09-10-98	1030	regular	<.003	<.002	<.002	.039	<.001	<.002	<.002	<.003	<.003	<.004	.017
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>													
10-07-96	1215	regular	<.003	.022	<.002	.091	<.001	<.002	<.002	<.003	<.003	<.004	.005
11-04-96	1210	do.	<.003	.022	E.004	.114	<.001	<.002	<.002	<.003	<.003	<.004	E.004
11-04-96	1220	spike	.102	.135	.132	.229	E.204	.105	.110	E.294	E.234	.107	.136
12-02-96	1155	regular	<.003	.020	E.004	.086	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-06-97	1133	do.	<.003	.106	.010	.183	<.001	<.002	<.002	<.0150	<.010	<.004	<.004
02-03-97	1108	do.	<.003	.040	.008	.145	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-10-97	1155	do.	<.003	.042	.008	.217	<.001	<.002	<.002	<.003	<.003	<.004	.008
03-10-97	1200	replicate	<.003	.045	.007	.218	<.001	<.002	<.002	<.003	<.003	<.004	.010
03-30-98	1113	regular	E.001	.024	.007	.325	<.001	<.002	<.002	<.003	<.003	<.004	.004
03-30-98	1118	replicate	<.003	.025	.008	.346	<.001	<.002	<.002	<.003	<.003	<.004	.005
04-01-98	1033	regular	<.003	.046	.016	.222	<.001	<.002	<.002	<.003	<.003	<.004	.007
05-04-98	1120	do.	<.003	.166	<.002	.072	<.001	<.002	<.002	<.003	<.003	<.004	.005
05-29-98	1246	do.	<.003	.915	.029	13.5	<.001	<.002	<.002	<.003	E.095	<.004	<.040
06-01-98	1318	do.	<.003	.319	.013	1.98	<.001	<.002	<.002	<.003	E.060	<.004	.080
06-12-98	1155	do.	<.003	.212	.018	2.92	<.001	<.002	<.002	<.003	E.159	<.004	.024

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>													
07-06-98	1213	regular	<0.003	0.067	0.008	1.08	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.013
08-03-98	1046	do.	<.003	<.002	<.002	.278	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-31-98	1102	do.	<.003	.011	.005	.213	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
10-16-96	0939	regular	<.003	<.002	<.002	.097	<.001	<.002	<.002	<.003	<.003	<.004	.024
11-14-96	0925	do.	<.003	.006	.006	.110	<.001	<.002	<.002	<.003	<.003	<.004	.013
11-14-96	0935	spike	.097	.117	.128	.227	E.174	.111	.107	E.266	E.196	.109	.144
12-10-96	0935	regular	<.003	.005	<.002	.091	<.001	<.002	<.002	<.003	<.003	<.004	.012
01-14-97	1200	do.	<.003	.068	<.002	.114	<.001	<.002	<.002	<.003	<.003	<.004	.009
02-13-97	0949	do.	<.003	.017	E.003	.088	<.001	<.002	<.002	<.003	<.003	<.004	.012
03-19-97	0955	do.	<.003	.036	.008	.154	<.001	<.002	<.002	<.003	<.003	<.004	.009
03-19-97	1005	spike	.096	.145	.122	.266	E.229	.100	.117	E.272	E.189	.114	.100
05-06-97	0914	regular	<.003	.806	.033	.387	<.001	<.002	<.002	<.003	<.003	<.004	.074
04-02-98	1355	do.	<.003	.018	.005	.117	<.001	<.002	<.002	<.003	<.003	<.004	.012
05-08-98	0843	do.	<.003	.363	.005	.856	<.001	<.002	<.002	<.003	<.003	<.004	.258
06-05-98	0900	do.	<.003	.086	.004	.985	<.001	<.002	<.002	<.003	<.003	<.004	.024
06-13-98	0946	do.	<.003	.826	.026	7.61	<.001	<.002	<.002	<.003	E.445	E.029	.471
06-26-98	0922	do.	<.003	.245	.053	3.41	<.001	<.002	<.002	<.003	E.077	<.010	.147
07-07-98	0920	do.	<.003	.060	.009	1.42	<.001	<.002	<.002	<.003	<.003	<.004	.027
08-07-98	0900	do.	<.003	.009	.006	.203	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-04-98	0850	do.	<.003	<.002	<.002	.142	<.001	<.002	<.002	<.003	<.003	<.004	.006
09-04-98	0855	replicate	<.003	E.003	<.002	.139	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
10-07-96	0948	regular	<.003	.038	<.002	.193	<.001	<.002	<.002	<.003	<.003	<.004	.161
11-12-96	0956	do.	E.001	.012	<.002	.139	<.001	<.002	<.002	<.003	<.003	<.004	.093
12-02-96	0945	do.	<.003	<.002	.004	.128	<.001	<.002	<.002	<.003	<.003	<.004	.034
01-06-97	0938	do.	<.003	.008	.005	.125	<.001	<.002	<.002	<.003	<.003	<.004	.062
02-04-97	0919	do.	<.003	.069	<.002	.386	<.001	<.002	<.002	<.003	<.003	<.004	.140

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>													
03-10-97	1025	regular	<0.003	0.034	0.015	0.488	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.125
05-01-97	0914	do.	<.003	2.20	.022	3.67	<.001	<.002	<.002	<.003	<.003	<.004	1.93
03-31-98	1245	do.	<.003	.012	.007	.134	<.001	<.002	<.002	<.003	<.003	E.004	.056
05-05-98	1343	do.	<.003	.019	.006	.134	<.001	<.002	<.002	<.003	<.003	<.004	.014
06-02-98	1325	do.	<.003	.046	.008	.396	<.001	<.002	<.002	<.003	<.003	<.004	.059
06-10-98	0826	do.	<.003	.849	.296	4.17	<.001	<.002	<.002	<.003	E.032	<.004	.916
06-30-98	1239	do.	<.003	.451	.045	4.04	<.001	<.002	<.002	<.003	E.039	.018	.721
07-10-98	0745	do.	<.003	.010	<.002	.347	<.001	<.002	<.002	<.003	<.003	<.004	.041
07-10-98	0750	replicate	<.003	.009	<.002	.344	<.001	<.002	<.002	<.003	<.003	<.004	.037
08-05-98	0810	regular	<.003	<.002	<.002	.139	<.001	<.002	<.002	E.057	<.003	<.004	<.010
08-05-98	0812	spike	.072	.135	.137	.274	E.266	.102	.110	E.576	E.273	.108	.134
08-05-98	0813	do.	<.003	3.91	4.27	3.94	<.001	<.002	3.50	E7.87	E4.40	<.004	2.69
08-05-98	0814	do.	<.003	7.35	8.81	7.61	<.001	<.002	6.70	E6.64	E6.45	<.004	4.71
09-01-98	1300	regular	<.003	E.002	<.002	.149	<.001	<.002	<.002	<.003	<.003	<.004	.016
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>													
10-07-96	0825	regular	<.003	.022	<.002	.159	<.001	<.002	<.002	<.003	<.003	<.004	.046
11-04-96	0810	do.	<.003	.088	.009	.364	<.001	<.002	<.002	<.003	<.003	<.010	.217
12-06-96	0900	do.	<.003	.029	<.002	.176	<.001	<.002	<.002	<.003	<.003	<.004	.086
01-02-97	0955	do.	<.003	<.002	<.002	.105	<.001	<.002	<.002	<.003	<.003	<.004	.023
02-06-97	0825	do.	<.003	.051	<.002	.395	<.001	<.002	<.002	<.003	<.003	<.004	.106
03-20-97	1015	do.	<.003	.011	<.002	.132	<.001	<.002	<.002	<.003	<.003	<.004	.051
04-10-97	0850	do.	<.003	.017	E.004	.223	<.001	<.002	<.002	<.003	<.003	<.004	.282
05-06-97	1515	do.	<.003	.198	.008	.958	<.001	<.002	<.002	<.003	<.003	E.004	.388
06-05-97	0855	do.	<.003	.088	.010	1.17	<.001	<.002	<.002	<.003	E.017	<.004	.406
07-14-97	0920	do.	<.003	<.002	<.002	.471	<.001	<.002	<.002	<.003	<.003	.006	.054
09-04-97	0845	do.	<.003	.018	<.002	.177	<.001	<.002	<.002	<.050	<.003	<.004	.072
10-07-97	0935	do.	E.001	<.002	<.020	.078	<.001	<.002	<.002	<.003	<.003	<.004	.025

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>													
11-06-97	1410	regular	<0.003	0.005	<0.002	0.137	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.023
12-01-97	0935	do.	<.003	<.002	<.002	.095	<.001	<.002	<.002	<.010	<.010	<.004	.022
01-08-98	0915	do.	<.003	<.002	<.002	.112	<.001	<.002	<.002	<.003	<.003	<.004	.025
02-05-98	0910	do.	<.003	.007	<.002	.100	<.001	<.002	<.002	<.003	<.003	<.004	.028
03-03-98	0835	do.	<.003	.005	<.002	.081	<.001	<.002	<.002	<.003	<.003	<.004	.018
04-07-98	0850	do.	<.003	<.002	<.002	.079	<.001	<.002	<.002	<.003	<.003	<.004	.009
05-05-98	1415	do.	<.003	.038	E.003	.314	<.001	<.002	<.002	<.003	<.003	<.004	.080
06-02-98	0855	do.	<.003	.133	.005	1.46	<.001	<.002	.009	<.003	<.003	<.010	.252
07-08-98	1000	do.	<.003	.100	.004	.980	<.001	<.002	<.002	<.003	E.021	<.010	.084
08-04-98	0900	do.	<.003	<.002	<.002	.241	<.001	<.002	<.002	<.003	<.003	<.004	.029
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>													
10-17-96	1010	regular	<.003	<.002	<.002	.054	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-06-96	0915	do.	<.003	.015	<.002	.065	<.001	<.002	<.002	<.003	<.003	<.004	.007
12-19-96	1015	do.	<.003	<.002	<.002	.069	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-21-97	1130	do.	<.003	<.002	<.002	.062	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-17-97	1120	do.	<.003	<.002	<.002	.097	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-05-97	0805	do.	<.003	.021	.005	.073	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-22-97	0950	do.	<.003	.023	.008	.054	<.001	<.002	<.002	<.003	<.003	<.004	.008
05-01-97	0900	do.	<.003	.166	.011	.104	<.001	<.002	<.002	<.003	<.003	<.004	.014
07-17-97	1115	do.	<.003	.080	.111	.977	<.001	<.002	<.002	<.003	<.003	<.004	.154
09-16-97	0920	do.	<.003	<.002	<.002	.065	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-23-97	0840	do.	<.003	<.002	.004	.088	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-13-97	1055	do.	<.003	<.002	<.002	.056	<.001	<.002	<.002	<.003	<.003	<.004	.011
12-11-97	1020	do.	<.003	<.002	<.002	.062	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-28-98	1010	do.	<.003	<.002	<.002	.037	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-17-98	1010	do.	<.003	.032	.006	.048	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-26-98	0730	do.	<.003	.010	.005	.076	<.001	<.002	<.002	<.003	<.003	<.004	.005



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>													
04-09-98	0830	regular	<0.003	0.032	0.008	0.075	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.005
06-09-98	1020	do.	<.003	.025	.005	.155	<.001	<.002	<.002	<.003	<.003	<.004	E.012
07-09-98	1015	do.	<.003	.033	.011	.300	<.001	<.002	<.002	<.003	<.003	<.004	.051
08-11-98	1035	do.	<.003	.035	.015	.124	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-14-98	1230	do.	<.003	<.002	<.002	.062	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>													
09-09-98	0957	regular	<.003	<.002	<.002	.103	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>													
10-17-96	0840	regular	<.003	<.002	<.002	.053	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-06-96	0815	do.	E.002	.038	.027	.096	<.001	<.002	<.002	<.003	E.067	<.004	.008
12-19-96	0910	do.	<.003	.008	.005	.079	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-21-97	0955	do.	E.003	.011	.004	.065	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-17-97	0930	do.	E.003	.006	.004	.053	<.001	<.002	E.002	<.003	<.003	<.004	<.004
03-05-97	1300	do.	<.003	.092	.032	.175	<.001	<.002	<.002	<.003	<.003	<.004	.023
05-01-97	0755	do.	E.002	7.62	.102	3.36	<.001	<.002	E.001	<.003	<.003	<.004	.150
07-17-97	0950	do.	<.003	.015	.005	.477	<.001	<.002	<.002	<.003	<.010	<.004	.016
09-16-97	0805	do.	E.003	<.002	<.002	.104	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-22-97	1100	do.	E.002	.007	<.002	.087	<.001	<.002	<.002	<.003	<.003	<.004	<.010
11-13-97	0920	do.	E.003	<.002	<.002	.065	<.001	<.002	<.002	<.003	<.003	<.004	<.004
12-11-97	1120	do.	E.002	<.002	E.003	.068	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-28-98	1125	do.	E.003	<.002	E.004	.053	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-17-98	0900	do.	<.003	.053	.009	.099	<.001	<.002	<.002	<.003	<.010	<.004	.014
03-26-98	1220	do.	<.003	.026	.004	.064	<.001	<.002	<.002	<.003	<.003	<.004	.006
04-09-98	1045	do.	E.002	.029	.010	.105	<.010	<.002	<.002	<.003	<.003	<.004	.006
06-09-98	0855	do.	E.001	.046	E.003	.228	<.001	<.002	<.002	<.003	E.044	<.004	.016
07-09-98	0900	do.	<.003	.019	.009	.323	<.001	<.002	<.002	<.003	<.003	<.004	.020
08-11-98	0850	do.	<.003	.022	<.002	.250	<.001	<.002	<.002	<.003	<.003	<.004	.007
09-14-98	1050	do.	E.001	E.002	<.002	.075	<.001	<.002	<.002	<.003	<.003	<.004	<.004

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>													
10-23-96	1107	regular	<0.003	<0.002	<0.002	0.037	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004
12-11-96	1150	do.	<.003	<.002	<.002	.065	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-14-97	0950	do.	<.003	<.002	<.002	.101	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-19-97	1050	do.	<.003	<.010	<.002	.056	<.001	<.002	<.002	<.003	<.003	<.004	<.004
03-18-97	1018	do.	<.003	.052	.077	.268	<.001	<.002	<.002	<.003	<.003	<.004	<.004
05-03-97	1053	do.	<.003	2.56	.028	.918	<.001	<.002	E.002	<.003	<.003	<.004	.079
04-02-98	0843	do.	<.003	.042	<.010	.110	<.001	<.002	<.002	<.003	<.003	<.004	.008
05-06-98	0838	do.	<.003	.027	<.002	.110	<.001	<.002	<.002	<.003	<.003	<.004	.006
06-03-98	0906	do.	<.003	.038	.009	.611	<.001	<.002	<.002	<.003	E.036	E.003	.011
07-08-98	0848	do.	<.003	.005	<.002	.330	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-05-98	0837	do.	<.003	.005	<.002	.168	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-05-98	0847	spike	.083	.120	.123	.295	E.232	.097	.102	E.426	E.254	.089	.108
09-02-98	0842	regular	<.003	<.002	<.002	.163	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-02-98	0847	replicate	<.003	<.002	<.002	.162	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>													
10-15-96	1120	regular	<.003	<.002	<.002	.067	<.001	<.002	<.002	<.003	<.003	<.004	<.004
11-12-96	1103	do.	<.003	.005	<.002	.075	<.001	<.002	<.002	<.003	<.003	<.004	<.004
12-12-96	1340	do.	<.003	<.002	<.002	.061	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-15-97	0855	do.	<.003	.011	.004	.084	<.001	<.002	<.002	<.003	<.003	<.004	.005
02-10-97	1015	do.	<.003	.012	E.004	.107	<.001	<.002	<.002	<.003	<.003	<.004	.005
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
10-10-96	1047	regular	<.003	<.002	<.002	.099	<.001	<.002	<.002	<.003	<.003	<.004	.011
11-07-96	1018	do.	<.003	.043	.074	.243	<.001	<.002	<.002	<.003	<.003	<.004	.045
12-05-96	0959	do.	<.003	<.002	<.002	.096	<.001	<.002	<.002	<.003	<.003	<.004	.007
01-13-97	1205	do.	<.003	.007	.005	.166	<.001	<.002	<.002	<.003	<.003	<.004	.017
02-06-97	0923	do.	<.003	.047	.013	.197	<.001	<.002	<.002	<.003	<.003	<.004	.029
03-12-97	1035	do.	<.003	.016	.015	.214	<.001	<.002	<.002	<.003	<.003	<.004	.028
03-17-97	0945	do.	<.003	.010	.010	.153	<.001	<.002	<.002	<.003	<.003	<.004	.035

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
03-17-97	0955	spike	0.105	0.126	0.127	0.288	E0.132	0.098	0.111	E0.248	E0.171	0.106	0.146
03-24-97	1026	regular	<.003	<.002	.005	.112	<.070	<.002	<.002	<.003	<.003	<.004	.019
04-02-97	1026	do.	<.003	<.002	E.003	.090	<.001	<.002	<.002	<.003	<.003	<.004	.006
04-08-97	1030	do.	<.003	.005	.008	.096	<.001	<.002	<.002	<.003	<.003	<.004	.023
04-14-97	1235	do.	<.003	.008	.009	.088	<.001	<.002	<.002	<.003	<.011	<.004	.016
04-21-97	1028	do.	<.003	<.002	.005	.071	<.001	<.002	<.002	<.003	<.003	<.004	.015
04-28-97	1006	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-28-97	1026	regular	<.003	.051	E.004	.185	<.001	<.002	<.002	<.003	<.003	<.004	.036
05-05-97	1015	do.	<.003	.097	.008	.203	<.001	<.002	<.002	<.003	<.003	<.004	.093
05-12-97	1022	do.	<.003	.111	.011	.190	<.001	<.002	<.002	<.003	<.003	<.004	.035
05-19-97	1033	do.	<.003	.046	.004	.147	<.001	<.002	<.002	<.003	<.003	E.002	.028
05-27-97	0936	do.	<.003	.128	.013	.374	<.001	<.002	<.002	<.003	E.016	<.004	.132
06-03-97	1116	do.	<.003	.018	E.004	.144	<.001	<.002	<.002	<.003	<.003	<.004	.020
06-09-97	0946	do.	<.003	.051	.005	.343	<.001	<.002	<.002	<.003	<.003	<.004	.029
06-16-97	0943	do.	<.003	.120	.140	7.88	<.001	<.002	<.002	<.003	<.010	<.004	1.61
06-24-97	0951	do.	<.003	.362	.015	3.34	<.001	<.002	<.002	<.003	E.089	<.010	.204
06-30-97	1022	do.	<.003	.024	.004	.459	<.001	<.002	<.002	<.003	E.009	<.004	.034
07-14-97	0944	do.	<.003	.029	.014	.383	<.001	<.002	<.002	<.003	<.003	E.004	.043
07-28-97	0928	do.	<.003	<.002	<.002	.249	<.001	<.002	<.002	<.003	<.003	<.004	<.004
07-28-97	0933	replicate	<.003	<.002	E.003	.165	<.001	<.002	<.002	<.003	<.003	<.004	.007
08-12-97	0916	regular	<.003	<.002	<.002	.172	<.001	<.002	<.002	<.003	<.003	<.004	.019
08-25-97	1000	do.	<.003	.022	.022	.391	<.001	<.002	<.002	<.003	<.003	<.004	.138
09-09-97	0945	do.	<.003	.009	.013	.132	<.001	<.002	<.002	<.003	<.003	<.004	.035
09-24-97	0940	do.	<.003	.009	.008	.129	<.001	<.002	<.002	<.003	<.003	<.004	.018
10-10-97	0938	do.	<.003	<.010	.005	.134	<.001	<.002	<.002	<.003	<.003	<.004	.009
10-10-97	0943	replicate	<.003	<.010	.004	.138	<.001	<.002	<.002	<.003	<.003	<.004	.009

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
10-21-97	0854	regular	<0.003	<0.002	E0.003	0.104	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004
11-07-97	0919	do.	<.003	<.002	E.003	.086	<.001	<.002	<.002	<.003	<.003	<.004	.007
11-18-97	0857	do.	<.003	<.002	<.002	.079	<.001	<.002	<.002	<.003	<.003	<.004	.007
12-04-97	0919	do.	<.003	.382	.005	.190	<.070	<.002	<.002	<.003	<.003	<.004	.041
01-08-98	0910	do.	<.003	.008	.010	.085	<.050	<.002	<.002	<.003	<.003	<.004	.004
02-20-98	0941	do.	<.003	.010	.005	.077	<.001	<.002	<.002	<.003	<.003	<.004	.008
03-18-98	0918	do.	<.003	<.002	<.002	.048	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-01-98	0945	do.	<.003	.011	.007	.164	<.001	<.002	<.002	<.003	<.003	<.004	.056
05-07-98	0919	do.	<.003	.128	.007	.269	<.001	<.002	<.002	<.003	<.003	<.004	.163
06-04-98	0933	do.	<.003	.055	E.004	.487	<.001	<.002	<.002	<.003	<.003	<.004	.051
06-10-98	1215	do.	<.003	.744	.023	6.22	<.001	<.002	<.002	<.003	E.086	<.004	.570
06-12-98	1238	do.	<.003	1.25	.070	11.1	<.001	<.002	<.002	<.003	E.511	.067	1.36
06-22-98	1415	do.	<.003	1.00	.066	4.50	<.001	<.002	<.002	<.003	E.049	<.004	.874
07-09-98	0924	do.	<.003	.037	.006	.472	<.001	<.002	<.002	<.003	<.003	<.004	.036
08-06-98	0855	do.	<.003	.015	.008	.285	<.001	<.002	<.002	<.003	<.003	<.004	.031
09-03-98	0936	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-03-98	0956	regular	<.003	E.003	.006	.129	<.001	<.002	<.002	<.003	<.003	<.004	.008
05464935, Cedar River at Nichols, IA (site 10a, fig. 1)													
10-29-96	1030	regular	<.003	.008	<.002	.108	<.001	<.002	<.002	<.003	<.003	<.004	.011
11-13-96	1013	do.	<.003	.010	.005	.098	<.001	<.002	<.002	<.003	<.003	<.004	.007
12-05-96	1030	do.	<.003	.008	.005	.085	<.001	<.002	<.002	<.003	<.003	<.004	.005
01-22-97	0950	do.	<.003	.016	<.002	.093	<.001	<.002	<.002	<.003	<.003	<.004	<.004
01-22-97	0955	replicate	<.003	.016	<.002	.092	<.001	<.002	<.002	<.003	<.003	<.004	<.004
02-03-97	0938	regular	<.003	.016	.004	.108	<.001	<.002	<.002	<.003	<.003	<.004	.017
03-13-97	0950	do.	<.003	.045	.010	.216	<.001	<.002	<.002	<.003	<.003	<.004	.034
05-07-97	0933	do.	<.003	1.16	.030	.591	<.001	<.002	<.002	<.003	<.003	<.004	.196
04-03-98	0851	do.	<.003	.033	.006	.119	<.001	<.002	<.002	<.003	<.003	<.004	.016

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
05-07-98	0827	regular	<0.003	0.132	0.007	0.255	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004	0.022
06-04-98	0900	do.	<.003	.294	.010	1.42	<.001	<.002	<.002	<.003	E.020	<.004	.034
07-06-98	0847	do.	<.003	.137	.027	1.39	<.001	<.002	<.002	<.003	<.003	<.004	.054
08-04-98	1300	do.	<.003	<.002	<.002	.197	<.001	<.002	<.002	<.003	<.003	<.004	<.004
09-03-98	0840	do.	<.003	.011	.016	.496	<.001	<.002	<.002	<.003	<.003	<.004	.009
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	<.003	<.002	<.002	.089	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-10-96	1020	replicate	<.003	<.002	<.002	.091	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-29-96	0855	regular	<.003	.008	<.002	.105	<.001	<.002	<.002	<.003	<.003	<.004	<.004
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>													
10-08-96	1155	regular	<.003	<.002	<.002	.119	<.001	<.002	<.002	<.003	<.003	<.004	.013
11-06-96	1038	do.	<.003	.009	.005	.126	<.001	<.002	<.002	<.003	<.003	<.004	<.004
12-03-96	1040	do.	<.003	.008	.006	.097	<.001	<.002	<.002	<.003	<.003	<.004	.010
01-07-97	1115	do.	<.003	.009	.004	.102	<.001	<.002	.006	<.003	<.003	<.004	.012
02-05-97	1030	do.	<.003	.030	.005	.172	<.001	<.002	<.002	<.003	<.003	<.004	.031
03-11-97	1220	do.	<.003	.041	.009	.183	<.001	<.002	<.002	<.003	<.003	<.004	.038
03-11-97	1225	replicate	<.003	.038	.009	.180	<.001	<.002	<.002	<.003	<.003	<.004	.038
03-20-97	0918	regular	<.003	.045	.011	.173	<.001	<.002	<.002	<.003	<.003	<.004	.017
03-20-97	0928	spike	.088	.140	.114	.280	E.196	.094	.101	E.250	E.180	.097	.107
03-27-97	0941	regular	<.003	<.050	<.050	.150	<.001	<.002	<.002	<.003	<.003	<.004	<.050
03-31-97	0936	do.	<.003	.037	.009	.136	<.001	<.002	<.002	<.003	<.003	<.004	.014
04-10-97	0922	do.	<.003	.009	.008	.098	<.001	<.002	<.002	<.003	<.003	<.004	<.004
04-16-97	0931	do.	<.003	.018	.010	.107	<.001	<.002	<.002	<.003	<.003	<.004	.016
04-23-97	0945	do.	<.003	.009	.006	.074	<.001	<.002	<.002	<.003	<.003	<.004	.017
04-30-97	0956	do.	<.003	.038	.005	.124	<.001	<.002	<.002	<.003	<.003	<.004	.027
05-07-97	0920	do.	<.003	1.11	.060	.941	<.001	<.002	<.002	<.003	<.003	<.004	.239
05-14-97	0955	do.	<.003	.509	.019	.559	<.001	<.002	<.002	<.003	<.003	<.004	.155
05-21-97	1028	do.	<.003	2.14	.235	6.32	<.001	<.002	E.002	<.003	<.003	E.048	1.83

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
05-29-97	1049	regular	<0.003	0.639	0.029	2.87	<0.001	<0.002	<0.002	<0.003	E0.018	<0.004	0.925
06-05-97	0940	do.	<.003	.140	.016	.558	<.001	<.002	.005	<.003	<.003	<.004	.130
06-12-97	0906	do.	<.003	.258	.019	1.07	<.001	<.002	<.002	<.003	<.003	<.010	.127
06-19-97	0908	do.	<.003	.094	.034	1.63	<.001	<.002	<.002	<.003	E.022	E.002	.158
06-19-97	0918	spike	<.003	2.69	6.22	14.8	<.001	<.002	2.45	E1.25	E1.35	<.004	3.72
06-25-97	0955	regular	<.003	.095	.021	1.75	<.001	<.002	<.002	<.003	<.003	<.004	.123
07-02-97	0912	do.	<.003	.222	.041	4.20	<.001	<.002	<.002	<.003	E.041	<.004	.169
07-16-97	0941	do.	<.003	.022	.006	.798	<.001	<.002	<.002	<.003	<.003	<.004	.034
07-31-97	0927	do.	<.003	<.012	.005	.357	<.001	<.002	<.002	<.003	<.003	<.004	.020
08-13-97	0918	do.	<.003	<.002	<.002	.241	<.001	<.002	<.002	<.003	<.003	<.004	<.004
08-28-97	0919	do.	<.003	<.002	<.002	.163	<.001	<.002	<.002	<.003	<.003	<.004	.008
09-05-97	0906	do.	<.003	.011	.014	.136	<.001	<.002	<.002	<.003	<.003	<.004	.017
09-23-97	0936	do.	<.003	<.002	<.002	.117	<.001	<.002	<.002	<.003	<.003	<.004	E.004
10-06-97	1030	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-06-97	1050	regular	<.003	<.002	<.002	.092	<.001	<.002	<.002	<.003	<.003	<.004	<.004
10-22-97	0951	do.	<.003	.010	.004	.120	<.001	<.002	<.002	<.003	<.003	<.004	.007
11-03-97	0953	do.	<.003	.008	E.004	.113	<.001	<.002	<.002	<.003	<.003	<.004	<.010
11-19-97	0935	do.	<.003	E.004	<.002	.095	<.001	<.002	<.002	<.003	<.003	<.004	.014
11-19-97	0945	spike	<.003	1.97	5.53	12.3	<.001	<.002	1.97	E1.86	E2.31	<.004	5.37
12-01-97	0928	regular	<.003	<.002	<.002	.073	<.340	<.002	<.002	<.003	<.003	<.004	<.004
01-05-98	0938	do.	<.003	.010	.006	.095	<.800	<.002	<.002	<.003	<.003	<.004	.015
01-05-98	0948	spike	.085	.121	.118	.204	E.229	.067	.098	E.139	E.132	.088	.108
02-17-98	0936	regular	<.003	<.010	E.004	.083	<.001	<.002	<.002	<.003	<.003	<.004	.010
03-09-98	1000	do.	<.003	.014	.008	.079	<.001	<.002	<.002	<.003	<.003	<.004	.011
03-30-98	0905	do.	<.003	.008	<.002	.075	<.001	<.002	<.002	<.003	<.003	<.004	.005
04-04-98	1020	do.	<.003	.028	<.002	.131	<.001	<.002	<.002	<.003	<.003	<.004	.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>													
05-04-98	0909	regular	<0.003	0.052	E0.004	E0.004	0.156	<0.001	<0.002	<0.003	<0.003	<0.004	0.026
06-01-98	0913	do.	<.003	.898	.064	3.04	<.001	<.002	<.002	<.003	<.003	<.010	.189
06-19-98	1002	do.	<.003	.417	.050	5.16	<.001	<.002	<.002	<.003	E.094	E.026	.788
07-02-98	1049	do.	<.003	.161	.023	2.35	<.001	<.002	<.002	<.003	<.003	<.004	.078
08-03-98	0925	do.	<.003	.013	<.002	.811	<.001	<.002	<.002	<.003	<.003	<.004	.049
08-31-98	0940	do.	<.003	.009	<.002	.196	<.001	<.002	<.002	<.003	<.003	<.004	.017
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
10-07-96	1020	regular	<.003	<.002	<.002	.320	<.001	<.002	<.002	<.003	<.003	<.004	.145
11-04-96	1100	do.	<.003	.016	<.020	.269	<.001	<.002	<.002	<.003	<.003	<.004	.082
12-06-96	1045	do.	<.003	<.002	<.002	.234	<.001	<.002	<.002	<.003	<.003	<.004	.064
01-02-97	1305	do.	<.003	<.002	<.002	.283	<.001	<.002	<.002	<.003	<.003	<.004	.084
02-06-97	1115	do.	<.003	.053	.013	.324	<.001	<.002	.007	<.003	<.003	<.004	.122
03-20-97	1220	do.	<.003	.006	.005	.135	<.001	<.002	<.002	<.003	<.003	<.004	.028
04-10-97	1130	do.	<.003	.007	<.002	.138	<.001	<.002	<.002	<.003	<.003	<.004	.048
05-06-97	1345	do.	<.003	.616	.117	4.25	<.001	<.002	E.002	<.003	E.011	E.029	1.76
06-05-97	1130	do.	<.003	.480	.036	3.82	<.001	<.002	<.002	<.003	<.003	<.004	1.46
07-14-97	1230	do.	<.003	.018	<.002	1.81	<.001	<.002	<.002	<.003	<.003	<.010	.269
08-11-97	1405	do.	<.003	<.002	<.002	1.19	<.001	<.002	<.002	<.003	<.003	<.004	.270
09-04-97	1110	do.	<.003	<.002	<.010	.601	<.001	<.002	<.002	<.040	<.003	<.004	.161
10-07-97	1155	do.	<.003	<.010	<.060	.384	<.001	<.002	<.002	<.003	<.003	<.004	.158
11-06-97	1125	do.	<.003	<.002	E.003	.152	<.001	<.002	<.002	<.003	<.003	<.004	.023
12-01-97	1145	do.	<.003	.026	.006	.294	<.001	<.002	<.002	<.010	<.010	<.004	.106
01-15-98	1155	do.	<.003	.009	.005	.168	<.001	<.002	<.002	<.003	<.003	.009	.060
02-05-98	1140	do.	<.003	.016	.006	.154	<.001	<.002	<.002	<.003	<.003	<.004	.071
03-03-98	1040	do.	<.003	.006	E.004	.108	<.001	<.002	<.002	<.003	<.003	<.004	.045
04-07-98	1100	do.	<.003	.013	.004	.110	<.010	<.002	<.002	<.003	<.003	<.004	.029
05-05-98	1300	do.	<.003	.100	.012	.701	<.001	<.002	<.002	<.003	<.003	<.004	.111

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbofuran (82674)	Chlor- pyrifos (38933)	Cyanazine (04041)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
06-02-98	1140	regular	<0.003	0.660	0.032	4.31	<0.001	<0.002	<0.002	<0.003	<0.003	<0.040	1.17
07-08-98	1210	do.	<.003	.162	.020	2.15	<.001	<.002	<.002	<.003	<.003	<.020	.445
08-04-98	1205	do.	<.003	E.011	<.002	E.838	<.001	<.002	<.002	<.003	<.003	<.004	E.060
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>													
10-09-96	0940	regular	<.003	.040	<.002	.209	<.001	<.002	<.002	<.003	<.003	<.004	.031
11-07-96	0909	do.	<.003	.015	<.002	.161	<.001	<.002	<.002	<.003	<.003	<.004	.046
12-04-96	0933	do.	<.003	.004	<.002	.111	<.001	<.002	<.002	<.003	<.003	<.004	.019
01-08-97	0930	do.	<.003	E.003	<.002	.108	<.001	<.002	<.002	<.003	<.003	<.004	.023
02-06-97	0857	do.	<.003	.047	.023	.340	<.001	<.002	<.002	<.003	<.003	<.004	.125
03-12-97	0930	do.	<.003	.031	.011	.189	<.001	<.002	<.002	<.003	<.003	<.004	.049
03-31-98	0824	do.	<.003	.010	<.002	.114	<.001	<.002	<.002	<.003	<.003	<.004	.026
05-05-98	0830	do.	<.003	.157	.011	.774	<.001	<.002	<.002	<.003	<.003	<.004	.123
05-26-98	1200	do.	<.003	10.6	.120	E48.1	<.001	<.002	.004	<.003	E.026	<.300	14.0
06-02-98	0820	do.	<.003	.784	.027	4.65	<.001	<.002	<.002	<.003	E.082	<.004	.380
06-18-98	1044	do.	<.003	.983	.079	9.84	<.001	<.002	<.002	<.003	E.122	E.059	1.51
07-08-98	0930	do.	<.003	.099	.014	2.04	<.001	<.002	<.002	<.003	<.003	<.004	.238
08-04-98	0810	do.	<.003	.006	<.002	.404	<.001	<.002	<.002	<.003	<.003	<.004	.024
09-01-98	0815	do.	<.003	.018	.010	.364	<.001	<.002	<.002	<.003	<.003	<.004	.092



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>													
10-09-96	1043	regular	<0.002	E0.054	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
11-06-96	1058	blank	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-96	1118	regular	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-04-96	1011	do.	<.002	E.102	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-08-97	1103	do.	<.002	E.095	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-08-97	1108	replicate	<.002	E.093	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-05-97	1105	regular	<.002	E.057	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-17-97	1305	do.	<.002	E.112	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-05-97	1044	do.	<.002	E.133	<.002	<.001	<.017	.088	<.004	<.003	<.003	<.004	<.002
04-02-98	1443	do.	<.002	E.110	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-06-98	1249	do.	<.002	E.084	<.002	<.001	<.017	.0045	<.004	<.003	<.003	<.004	<.002
05-27-98	1335	do.	<.002	E.162	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-03-98	1450	do.	<.002	E.188	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
06-20-98	1030	do.	<.002	E.600	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
07-08-98	1315	do.	<.002	E.091	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	1231	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	1241	spike	.111	E.161	.119	.112	.025	.100	.104	.105	.109	.133	.148
09-02-98	1308	regular	<.002	E.124	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-13-96	0946	do.	<.002	E.081	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-09-96	0924	do.	<.002	E.082	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-13-97	1025	do.	<.002	E.075	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-11-97	1017	do.	<.002	E.064	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-20-97	0920	do.	<.002	E.103	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-06-97	0937	do.	<.002	E.138	<.002	<.001	<.017	.064	<.004	<.003	<.003	<.004	<.002
04-02-98	0900	do.	<.002	E.064	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
05-06-98	0925	regular	<0.002	E0.051	<0.002	<0.001	<0.017	E0.003	<0.004	<0.003	<0.003	<0.004	<0.002
06-03-98	0915	do.	<.002	E.143	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-17-98	1300	do.	E.001	E.438	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-09-98	0855	do.	<.002	E.245	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-06-98	0900	do.	<.002	E.045	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-02-98	0915	do.	<.002	E.144	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-02-98	0925	spike	3.48	E1.09	3.28	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-08-96	1015	replicate	<.002	E.020	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-05-96	0935	regular	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-03-96	0928	do.	<.002	E.033	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-09-97	0950	do.	<.002	E.024	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-04-97	1015	do.	<.002	E.018	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-11-97	0950	do.	<.002	E.051	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-18-97	0856	do.	<.002	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-25-97	0908	do.	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-03-97	0847	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-09-97	0854	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-15-97	0925	do.	E.0004	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-22-97	0944	do.	<.002	E.020	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-22-97	0954	spike	.096	E.071	.090	.069	.056	.107	.114	.084	.077	.092	.158
04-22-97	0955	do.	.096	E.074	.092	.070	.052	.107	.110	.086	.078	.102	.161
04-29-97	0913	regular	<.002	E.026	<.002	<.001	<.017	.004	<.004	<.003	<.003	<.004	<.002
05-03-97	1046	do.	<.002	E.023	<.002	<.001	<.017	.049	<.004	<.003	<.003	<.004	<.002
05-13-97	0951	do.	<.002	E.025	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
05-20-97	0853	do.	<.002	E.018	<.002	<.001	<.017	E.004	<.004	<.003	<.003	<.004	<.002
05-28-97	0933	do.	<.002	E.022	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-28-97	0943	spike	0.103	E0.052	0.092	0.079	0.070	0.102	0.085	0.095	0.093	0.093	0.129
06-04-97	0921	regular	<.002	E.013	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-10-97	0919	do.	<.002	E.016	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-17-97	0858	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-23-97	1156	do.	.007	E.137	<.002	.011	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-01-97	0905	do.	<.002	E.051	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-15-97	0850	do.	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-29-97	0900	do.	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-11-97	1200	do.	<.002	E.010	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-26-97	0837	do.	<.002	E.012	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-26-97	0847	spike	5.79	E1.10	2.23	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-11-97	1005	regular	<.002	E.005	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-25-97	0852	do.	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-08-97	0928	blank	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-08-97	0948	regular	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-20-97	1134	do.	<.002	E.026	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-05-97	0857	do.	<.002	E.015	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-17-97	1134	do.	<.002	E.018	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-02-97	0908	do.	<.002	E.016	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-06-98	0919	do.	<.002	E.014	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-06-98	0929	spike	.094	E.111	.102	.097	E.012	.090	.081	.096	.086	.104	.144
02-18-98	0924	regular	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-12-98	0926	do.	<.002	E.026	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-31-98	0922	do.	<.002	E.065	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-05-98	0922	do.	<.002	E.020	E.004	<.001	<.017	.006	<.004	<.003	<.003	<.004	<.002
06-02-98	0904	do.	<.002	E.057	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>													
06-13-98	0928	regular	<0.002	E0.068	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
06-23-98	0848	do.	<.002	E.283	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-07-98	0900	do.	<.002	E.041	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-07-98	0905	replicate	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-04-98	0903	regular	<.002	E.014	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-01-98	0944	do.	<.002	E.022	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>													
09-10-98	1030	regular	<.002	E.015	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>													
10-07-96	1215	regular	<.002	E.022	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-04-96	1210	do.	<.002	E.051	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-04-96	1220	spike	.112	E.126	.110	.089	.048	.105	.134	.122	.122	.120	.107
12-02-96	1155	regular	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-06-97	1133	do.	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-03-97	1108	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-10-97	1155	do.	<.002	E.064	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-10-97	1200	replicate	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-30-98	1113	regular	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-30-98	1118	replicate	<.002	E.090	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-01-98	1033	regular	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-04-98	1120	do.	<.002	E.032	<.002	<.001	<.017	.006	<.004	<.003	<.003	<.004	<.002
05-29-98	1246	do.	<.002	E.308	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-01-98	1318	do.	<.002	E.172	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-12-98	1155	do.	E.003	E.251	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-06-98	1213	do.	<.002	E.092	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-03-98	1046	do.	<.002	E.048	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-31-98	1102	do.	<.002	E.057	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
10-16-96	0939	regular	<0.002	E.024	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
11-14-96	0925	do.	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-14-96	0935	spike	.109	E.116	.106	.089	.080	.100	.127	.106	.110	.106	.090
12-10-96	0935	regular	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-14-97	1200	do.	<.002	E.054	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-13-97	0949	do.	<.002	E.041	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-19-97	0955	do.	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-19-97	1005	spike	.123	E.073	.111	.104	.088	.112	.110	.108	.108	.115	.107
05-06-97	0914	regular	<.002	E.043	<.002	<.001	<.017	.005	<.004	<.003	<.003	<.004	<.002
04-02-98	1355	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-08-98	0843	do.	<.002	E.031	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-05-98	0900	do.	<.002	E.033	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-13-98	0946	do.	<.002	E.519	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-26-98	0922	do.	<.002	E.239	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-07-98	0920	do.	<.002	E.112	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-07-98	0900	do.	<.002	E.035	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-04-98	0850	do.	<.002	E.023	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-04-98	0855	replicate	<.002	E.020	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
10-07-96	0948	regular	<.002	E.018	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-12-96	0956	do.	<.002	E.034	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
12-02-96	0945	do.	<.002	E.022	<.002	<.001	<.017	.012	<.004	<.003	<.003	<.004	<.002
01-06-97	0938	do.	<.002	E.032	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
02-04-97	0919	do.	<.002	E.064	<.002	<.001	<.017	<.002	<.004	<.003	<.003	.018	<.002
03-10-97	1025	do.	<.002	E.090	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-01-97	0914	do.	E.002	E.068	<.002	<.001	<.017	.012	<.004	<.003	<.003	<.004	<.002
03-31-98	1245	do.	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>													
05-05-98	1343	regular	<0.002	E0.037	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
06-02-98	1325	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-10-98	0826	do.	<.002	E.291	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-30-98	1239	do.	<.002	E.571	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-10-98	0745	do.	<.002	E.075	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-10-98	0750	replicate	<.002	E.058	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	0810	regular	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	0812	spike	.111	E.068	.122	.132	.044	.0915	.090	.097	.113	.129	.156
08-05-98	0813	do.	3.52	E.980	3.68	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	0814	do.	7.12	E2.38	7.34	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-01-98	1300	regular	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	E.002	<.004	<.002
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>													
10-07-96	0825	regular	<.002	E.015	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-04-96	0810	do.	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-06-96	0900	do.	<.002	E.025	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-02-97	0955	do.	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-06-97	0825	do.	<.002	E.052	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-20-97	1015	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-10-97	0850	do.	<.002	E.014	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-06-97	1515	do.	<.002	E.064	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
06-05-97	0855	do.	<.002	E.088	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-14-97	0920	do.	<.002	E.044	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-04-97	0845	do.	<.002	E.035	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-07-97	0935	do.	<.002	E.009	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-97	1410	do.	<.002	E.062	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-01-97	0935	do.	<.002	E.067	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-08-98	0915	do.	<.002	E.114	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>													
02-05-98	0910	regular	<0.002	E0.084	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
03-03-98	0835	do.	<.002	E.096	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-07-98	0850	do.	<.002	E.100	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-05-98	1415	do.	<.002	E.067	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-02-98	0855	do.	<.002	E.089	<.002	<.001	<.017	.004	<.004	<.003	<.003	<.004	<.002
07-08-98	1000	do.	<.002	E.100	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-04-98	0900	do.	<.002	E.070	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>													
10-17-96	1010	regular	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-96	0915	do.	<.002	E.026	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-19-96	1015	do.	<.002	E.042	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-21-97	1130	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-17-97	1120	do.	<.002	E.024	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-05-97	0805	do.	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-22-97	0950	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-01-97	0900	do.	<.002	E.033	<.002	<.001	<.017	.017	<.004	<.003	<.003	<.004	<.002
07-17-97	1115	do.	<.002	E.115	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-16-97	0920	do.	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-23-97	0840	do.	<.002	E.080	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-13-97	1055	do.	<.002	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-11-97	1020	do.	<.002	E.052	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-28-98	1010	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-17-98	1010	do.	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-26-98	0730	do.	<.002	E.082	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-09-98	0830	do.	<.002	E.107	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
06-09-98	1020	do.	<.002	E.028	.007	<.001	<.017	E.004	<.004	<.003	<.003	<.004	<.002
07-09-98	1015	do.	<.002	E.065	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>													
08-11-98	1035	regular	<0.002	E.033	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
09-14-98	1230	do.	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>													
09-09-98	0957	regular	<.002	E.097	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>													
10-17-96	0840	regular	<.002	E.022	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-96	0815	do.	<.002	E.053	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-19-96	0910	do.	<.002	E.059	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-21-97	0955	do.	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-17-97	0930	do.	<.002	E.024	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-05-97	1300	do.	<.002	E.044	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-01-97	0755	do.	<.002	E.043	<.002	<.001	<.017	.014	<.004	<.003	<.003	<.004	<.002
07-17-97	0950	do.	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-16-97	0805	do.	E.001	E.017	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-22-97	1100	do.	<.002	E.058	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-13-97	0920	do.	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-11-97	1120	do.	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-28-98	1125	do.	<.002	E.033	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-17-98	0900	do.	<.002	E.052	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-26-98	1220	do.	<.002	E.065	<.002	<.001	<.017	E.004	<.004	<.003	<.003	<.004	<.002
04-09-98	1045	do.	<.002	E.103	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-09-98	0855	do.	<.002	E.071	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-09-98	0900	do.	<.002	E.071	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-11-98	0850	do.	<.002	E.105	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-14-98	1050	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>													
10-23-96	1107	regular	E.002	E.024	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-11-96	1150	do.	<.002	E.053	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)—Continued</b>													
01-14-97	0950	regular	<0.002	E0.092	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
02-19-97	1050	do.	<.002	E.044	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-18-97	1018	do.	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-03-97	1053	do.	E.002	E.124	<.002	<.001	<.017	.005	<.004	<.003	<.003	<.004	<.002
04-02-98	0843	do.	<.002	E.156	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-06-98	0838	do.	<.002	E.100	<.002	<.001	<.017	.007	<.004	<.003	<.003	<.004	<.002
06-03-98	0906	do.	<.002	E.152	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-08-98	0848	do.	<.002	E.052	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	0837	do.	<.002	E.044	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-05-98	0847	spike	.101	E.083	.106	.103	.046	.094	.086	.096	.104	.122	.143
09-02-98	0842	regular	<.002	E.064	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-02-98	0847	replicate	<.002	E.068	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>													
10-15-96	1120	regular	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-12-96	1103	do.	<.002	E.042	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-12-96	1340	do.	<.002	E.055	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-15-97	0855	do.	<.002	E.068	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-10-97	1015	do.	<.002	E.043	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
10-10-96	1047	regular	<.002	E.042	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-07-96	1018	do.	<.002	E.059	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-05-96	0959	do.	<.002	E.070	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-13-97	1205	do.	<.002	E.076	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-06-97	0923	do.	<.002	E.057	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-12-97	1035	do.	<.002	E.073	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-17-97	0945	do.	<.002	E.054	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-17-97	0955	spike	.133	E.105	.113	.079	.078	.103	.105	.106	.099	.106	.094
03-24-97	1026	regular	<.002	E.066	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
04-02-97	1026	regular	<0.002	E.035	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
04-08-97	1030	do.	<.002	E.054	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-14-97	1235	do.	<.002	E.046	<.002	E.003	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-21-97	1028	do.	<.002	E.049	<.002	E.003	<.017	.015	<.004	<.003	<.003	<.004	<.002
04-28-97	1006	blank	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-28-97	1026	regular	<.002	E.031	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
05-05-97	1015	do.	<.002	E.070	<.002	<.001	<.017	.005	<.004	<.003	<.003	<.004	<.002
05-12-97	1022	do.	<.002	E.047	<.002	<.001	<.017	.005	<.004	<.003	<.003	<.004	<.002
05-19-97	1033	do.	<.002	E.030	<.002	<.001	<.017	.005	<.004	<.003	<.003	<.004	<.002
05-27-97	0936	do.	<.002	E.030	<.002	<.001	<.017	.004	<.004	<.003	<.003	<.004	<.002
06-03-97	1116	do.	<.002	E.036	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
06-09-97	0946	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-16-97	0943	do.	<.002	E.183	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
06-24-97	0951	do.	<.002	E.096	<.002	.004	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-30-97	1022	do.	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-14-97	0944	do.	<.002	E.045	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-28-97	0928	do.	<.002	E.041	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-28-97	0933	replicate	<.002	E.029	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-12-97	0916	regular	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-25-97	1000	do.	<.002	E.071	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-09-97	0945	do.	<.002	E.035	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-24-97	0940	do.	<.002	E.017	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-10-97	0938	do.	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-10-97	0943	replicate	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-21-97	0854	regular	<.002	E.128	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-07-97	0919	do.	<.002	E.063	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>													
11-18-97	0857	regular	<0.002	E0.107	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
12-04-97	0919	do.	E.001	E.082	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-08-98	0910	do.	<.002	E.075	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-20-98	0941	do.	<.002	E.078	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-18-98	0918	do.	<.002	E.031	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-01-98	0945	do.	<.002	E.072	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-07-98	0919	do.	<.002	E.058	<.002	<.001	<.017	.006	<.004	<.003	<.003	<.004	<.002
06-04-98	0933	do.	<.002	E.093	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-10-98	1215	do.	<.002	E.359	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-12-98	1238	do.	<.002	E.796	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-22-98	1415	do.	<.002	E.415	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-09-98	0924	do.	<.002	E.058	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-06-98	0855	do.	<.002	E.085	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-03-98	0936	blank	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-03-98	0956	regular	<.002	E.043	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>													
10-29-96	1030	regular	<.002	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-13-96	1013	do.	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-05-96	1030	do.	<.002	E.057	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-22-97	0950	do.	<.002	E.050	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-22-97	0955	replicate	<.002	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-03-97	0938	regular	<.002	E.046	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-13-97	0950	do.	<.002	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-07-97	0933	do.	<.002	E.100	<.002	<.001	<.017	.009	<.004	<.003	<.003	<.004	<.002
04-03-98	0851	do.	<.002	E.054	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-07-98	0827	do.	<.002	E.035	<.002	<.001	<.017	.004	<.004	<.003	<.003	<.004	<.002
06-04-98	0900	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
07-06-98	0847	regular	<0.002	E0.098	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
08-04-98	1300	do.	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-03-98	0840	do.	.004	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-10-96	1020	replicate	<.002	E.035	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-29-96	0855	regular	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>													
10-08-96	1155	regular	<.002	E.046	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-96	1038	do.	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-03-96	1040	do.	<.002	E.060	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-07-97	1115	do.	<.002	E.066	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-05-97	1030	do.	<.002	E.048	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-11-97	1220	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-11-97	1225	replicate	<.002	E.044	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-20-97	0918	regular	<.002	E.046	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-20-97	0928	spike	.116	E.085	.101	.091	.083	.097	.105	.098	.095	.102	.098
03-27-97	0941	regular	<.002	<.110	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-31-97	0936	do.	<.002	E.038	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-10-97	0922	do.	<.002	E.047	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-16-97	0931	do.	<.002	E.062	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-23-97	0945	do.	E.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-30-97	0956	do.	<.002	E.051	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
05-07-97	0920	do.	<.002	E.047	<.002	<.001	<.017	.008	<.004	<.003	<.003	<.004	<.002
05-14-97	0955	do.	<.002	E.073	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
05-21-97	1028	do.	E.002	E.078	E.004	E.003	<.017	E.004	<.004	<.003	<.003	<.004	<.002
05-29-97	1049	do.	<.002	E.078	E.003	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
06-05-97	0940	do.	<.002	E.039	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
06-12-97	0906	regular	<0.002	E0.057	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
06-19-97	0908	do.	E.001	E.056	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-19-97	0918	spike	7.35	E1.26	2.25	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-25-97	0955	regular	<.002	E.062	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-02-97	0912	do.	<.002	E.109	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-16-97	0941	do.	<.002	E.054	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-31-97	0927	do.	<.002	E.049	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-13-97	0918	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-28-97	0919	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-05-97	0906	do.	<.002	E.023	.057	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-23-97	0936	do.	<.002	E.020	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-06-97	1030	blank	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-06-97	1050	regular	<.002	E.018	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-22-97	0951	do.	<.002	E.091	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-03-97	0953	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-19-97	0935	do.	<.002	E.087	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-19-97	0945	spike	4.85	E2.89	1.93	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-01-97	0928	regular	<.002	E.022	.006	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-05-98	0938	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-05-98	0948	spike	.101	E.082	.095	.098	.045	.097	.070	.099	.095	.096	.140
02-17-98	0936	regular	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-09-98	1000	do.	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-30-98	0905	do.	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-04-98	1020	do.	<.002	E.122	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-04-98	0909	do.	<.002	E.035	<.002	<.001	<.017	.006	<.004	<.003	<.003	<.004	<.002
06-01-98	0913	do.	<.002	E.079	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>													
06-19-98	1002	regular	E0.001	E0.514	<0.002	E0.004	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
07-02-98	1049	do.	<.002	E.148	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-03-98	0925	do.	<.002	E.101	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-31-98	0940	do.	<.002	E.031	E.004	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
10-07-96	1020	regular	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-04-96	1100	do.	<.002	E.067	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-06-96	1045	do.	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-02-97	1305	do.	<.002	E.025	.011	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-06-97	1115	do.	<.002	E.068	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-20-97	1220	do.	<.002	E.017	<.002	<.001	<.017	<.002	<.004	E.004	<.003	<.004	<.002
04-10-97	1130	do.	<.002	E.018	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-06-97	1345	do.	<.002	E.084	<.002	<.001	<.017	E.002	<.004	<.003	<.003	<.004	<.002
06-05-97	1130	do.	<.002	E.123	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-14-97	1230	do.	<.002	E.090	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-11-97	1405	do.	<.002	E.081	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-04-97	1110	do.	.009	E.067	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
10-07-97	1155	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-06-97	1125	do.	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-01-97	1145	do.	<.002	E.106	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-15-98	1155	do.	<.002	E.099	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-05-98	1140	do.	<.002	E.082	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-03-98	1040	do.	<.002	E.068	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
04-07-98	1100	do.	<.002	E.082	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-05-98	1300	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-02-98	1140	do.	<.002	E.132	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-08-98	1210	do.	<.002	E.283	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dacthal (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disulfoton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Etho- prophos (82672)	Fonofos (04095)	Lindane (39341)	Linuron (82666)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)—Continued</b>													
08-04-98	1205	regular	<0.002	E0.045	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>													
10-09-96	0940	regular	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
11-07-96	0909	do.	<.002	E.042	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
12-04-96	0933	do.	<.002	E.039	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
01-08-97	0930	do.	<.002	E.062	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
02-06-97	0857	do.	<.002	E.060	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-12-97	0930	do.	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
03-31-98	0824	do.	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
05-05-98	0830	do.	<.002	E.033	<.002	<.001	<.017	E.003	<.004	<.003	<.003	<.004	<.002
05-26-98	1200	do.	<.002	E.539	.005	.006	<.017	<.002	<.004	<.003	E.002	.005	<.002
06-02-98	0820	do.	<.002	E.088	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
06-18-98	1044	do.	<.002	E.631	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
07-08-98	0930	do.	<.002	E.21	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
08-04-98	0810	do.	<.002	E.052	<.002	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002
09-01-98	0815	do.	<.002	E.063	<.002	<.001	<.017	E.004	<.004	<.003	<.003	<.004	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>													
10-09-96	1043	regular	<0.005	0.064	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.013
11-06-96	1058	blank	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
11-06-96	1118	regular	<.005	.134	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
12-04-96	1011	do.	<.005	.116	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
01-08-97	1103	do.	<.005	.200	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-08-97	1108	replicate	<.005	.202	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
02-05-97	1105	regular	<.005	.104	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-17-97	1305	do.	<.005	.616	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-05-97	1044	do.	<.005	2.74	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
04-02-98	1443	do.	<.005	.354	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
05-06-98	1249	do.	<.005	.248	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-27-98	1335	do.	<.005	.938	.021	<.004	<.003	<.004	<.006	<.004	.010	<.002	E.005
06-03-98	1450	do.	<.005	.460	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.022
06-20-98	1030	do.	<.005	2.46	.029	<.004	<.003	<.004	<.006	<.004	.038	<.002	.022
07-08-98	1315	do.	<.005	.298	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
08-05-98	1231	do.	<.005	.062	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
08-05-98	1241	spike	.145	.203	.105	.103	.115	.117	.159	.105	.106	.030	.126
09-02-98	1308	regular	<.005	.083	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	<.005	.113	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.015
11-13-96	0946	do.	<.005	.117	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
12-09-96	0924	do.	<.005	.077	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-13-97	1025	do.	<.005	1.38	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
02-11-97	1017	do.	<.005	.258	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
03-20-97	0920	do.	<.005	.702	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-06-97	0937	do.	<.005	1.68	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
04-02-98	0900	do.	<.005	.264	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
05-06-98	0925	regular	<0.005	0.089	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.005
06-03-98	0915	do.	<.005	1.92	<.020	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-17-98	1300	do.	<.005	1.73	.020	<.004	<.003	<.004	<.006	<.004	<.010	<.002	E.008
07-09-98	0855	do.	<.005	.494	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
08-06-98	0900	do.	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
09-02-98	0915	do.	<.005	.137	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
09-02-98	0925	spike	3.72	3.91	2.54	<.004	<.003	<.004	<.006	<.004	<.004	<.002	3.71
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	<.005	.066	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
10-08-96	1015	replicate	<.005	.066	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
11-05-96	0935	regular	<.005	.077	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
12-03-96	0928	do.	<.005	.054	.005	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
01-09-97	0950	do.	<.005	.311	.011	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
02-04-97	1015	do.	<.005	.871	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-11-97	0950	do.	<.005	1.85	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
03-18-97	0856	do.	<.005	5.05	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-25-97	0908	do.	<.005	1.54	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
04-03-97	0847	do.	<.005	.316	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
04-09-97	0854	do.	<.005	.212	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
04-15-97	0925	do.	<.005	.202	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-22-97	0944	do.	<.005	.222	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-22-97	0954	spike	.098	.317	.095	.109	.100	.131	.121	.104	.123	.057	.099
04-22-97	0955	do.	.103	.315	.098	.112	.105	.130	.125	.109	.122	.054	.103
04-29-97	0913	regular	<.005	.179	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
05-03-97	1046	do.	<.005	1.34	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-13-97	0951	do.	<.005	.256	E.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
05-20-97	0853	do.	<.005	.443	E.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-28-97	0933	regular	<0.005	0.145	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.007
05-28-97	0943	spike	.097	.246	.082	.106	.090	.104	.121	.104	.091	.071	.103
06-04-97	0921	regular	<.005	.109	.007	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
06-10-97	0919	do.	<.005	.108	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
06-17-97	0858	do.	<.005	.426	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.063
06-23-97	1156	do.	<.005	5.09	.011	<.004	<.003	<.004	<.006	<.004	.103	<.002	E.012
07-01-97	0905	do.	<.005	.794	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.018
07-15-97	0850	do.	<.005	.186	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.053
07-29-97	0900	do.	<.005	.229	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
08-11-97	1200	do.	<.005	.068	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
08-26-97	0837	do.	<.005	.086	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.015
08-26-97	0847	spike	1.48	5.43	1.26	<.004	<.003	<.004	<.006	<.004	<.004	<.002	2.24
09-11-97	1005	regular	<.005	.059	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
09-25-97	0852	do.	<.005	.055	<.004	<.004	<.0200	<.004	<.006	<.004	<.004	<.002	E.016
10-08-97	0928	blank	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
10-08-97	0948	regular	<.005	.036	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
10-20-97	1134	do.	<.005	.459	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.021
11-05-97	0857	do.	<.005	.096	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
11-17-97	1134	do.	<.005	.072	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
12-02-97	0908	do.	<.005	.069	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
01-06-98	0919	do.	<.005	.109	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
01-06-98	0929	spike	.088	.214	.090	.082	.095	.083	.099	.091	.079	.015	.107
02-18-98	0924	regular	<.005	11.6	.017	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
03-12-98	0926	do.	<.005	.265	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
03-31-98	0922	do.	<.005	.272	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
05-05-98	0922	do.	<.005	.151	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metolachlor (39415)	Metribuzin (82630)	Molinate (82671)	Napropamide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>													
06-02-98	0904	regular	<0.005	0.230	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.007
06-13-98	0928	do.	<.005	.212	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.049
06-23-98	0848	do.	<.005	2.31	.026	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
07-07-98	0900	do.	<.005	.599	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
07-07-98	0905	replicate	<.005	.613	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
08-04-98	0903	regular	<.005	.073	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.016
09-01-98	0944	do.	<.005	.066	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.016
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>													
09-10-98	1030	regular	<.005	.060	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>													
10-07-96	1215	regular	<.005	.303	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.039
11-04-96	1210	do.	<.005	.188	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
11-04-96	1220	spike	E.128	.315	.138	.113	.106	.138	.150	.104	.110	.061	.138
12-02-96	1155	regular	<.005	.316	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
01-06-97	1133	do.	<.005	11.0	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-03-97	1108	regular	<.005	1.32	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-10-97	1155	do.	<.005	2.72	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-10-97	1200	replicate	<.005	2.87	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-30-98	1113	regular	<.005	.382	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-30-98	1118	replicate	<.005	.401	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
04-01-98	1033	regular	<.005	.564	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
05-04-98	1120	do.	<.005	.233	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
05-29-98	1246	do.	<.005	3.91	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-01-98	1318	do.	<.005	.912	.019	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-12-98	1155	do.	<.005	1.74	.011	<.004	<.003	<.004	<.006	<.004	.015	<.002	E.008
07-06-98	1213	do.	<.005	.919	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
08-03-98	1046	do.	<.005	.132	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>													
08-31-98	1102	regular	<.005	0.195	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E0.007
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
10-16-96	0939	regular	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.018
11-14-96	0925	do.	<.005	.076	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
11-14-96	0935	spike	E.122	.206	.120	.108	.100	.126	.135	.0990	.115	.084	.128
12-10-96	0935	regular	<.005	.066	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-14-97	1200	do.	<.005	3.54	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
02-13-97	0949	do.	<.005	.327	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
03-19-97	0955	do.	<.005	.845	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-19-97	1005	spike	.114	.964	.095	.108	.114	.140	.119	.114	.113	.088	.113
05-06-97	0914	regular	<.005	2.26	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
04-02-98	1355	do.	<.005	.150	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-08-98	0843	do.	<.005	1.08	.013	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
06-05-98	0900	do.	<.005	.358	.005	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
06-13-98	0946	do.	<.005	3.59	.036	<.004	<.003	<.004	<.006	<.004	.036	<.002	E.014
06-26-98	0922	do.	<.005	2.15	.020	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
07-07-98	0920	do.	<.005	.843	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
08-07-98	0900	do.	<.005	.188	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.044
09-04-98	0850	do.	<.005	.062	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
09-04-98	0855	replicate	<.005	.059	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.015
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
10-07-96	0948	regular	<.005	.130	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
11-12-96	0956	do.	<.005	.081	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
12-02-96	0945	do.	<.005	.076	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-06-97	0938	do.	<.005	.117	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-04-97	0919	do.	<.005	.301	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-10-97	1025	do.	<.005	.285	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>													
05-01-97	0914	regular	<0.005	3.13	0.120	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	<0.018
03-31-98	1245	do.	<.005	.079	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-05-98	1343	do.	<.005	.049	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-02-98	1325	do.	<.005	.107	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-10-98	0826	do.	<.005	1.73	.014	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-30-98	1239	do.	<.005	1.67	.022	<.004	<.003	<.004	<.006	<.004	.006	<.002	<.018
07-10-98	0745	do.	<.005	.094	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
07-10-98	0750	replicate	<.005	.095	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
08-05-98	0810	regular	<.005	.034	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
08-05-98	0812	spike	.159	.176	.085	.105	.116	.121	.170	.101	.100	.054	.124
08-05-98	0813	do.	3.72	3.65	2.50	<.004	<.003	<.004	<.006	<.004	<.004	<.002	3.67
08-05-98	0814	do.	6.45	7.05	6.00	<.004	<.003	<.004	<.006	<.004	<.004	<.002	6.85
09-01-98	1300	regular	<.005	.031	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>													
10-07-96	0825	regular	<.005	.057	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
11-04-96	0810	do.	<.005	.157	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
12-06-96	0900	do.	<.005	.066	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
01-02-97	0955	do.	<.005	.022	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-06-97	0825	do.	<.005	.227	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-20-97	1015	do.	<.005	.049	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
04-10-97	0850	do.	<.005	.177	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-06-97	1515	do.	<.005	.761	.005	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
06-05-97	0855	do.	<.005	.547	.022	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
07-14-97	0920	do.	<.005	.119	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
09-04-97	0845	do.	<.005	.068	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
10-07-97	0935	do.	<.005	.032	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
11-06-97	1410	do.	E.005	.029	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>													
12-01-97	0935	regular	<0.005	0.026	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	<0.018
01-08-98	0915	do.	<.005	.045	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-05-98	0910	do.	<.005	.063	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-03-98	0835	do.	<.005	.022	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
04-07-98	0850	do.	<.005	.023	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-05-98	1415	do.	<.005	.258	.015	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
06-02-98	0855	do.	<.005	.585	<.004	<.004	<.003	<.004	<.006	<.004	.009	<.002	<.018
07-08-98	1000	do.	<.005	.365	.006	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
08-04-98	0900	do.	<.005	.045	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>													
10-17-96	1010	regular	<.005	.028	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
11-06-96	0915	do.	<.005	.093	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
12-19-96	1015	do.	<.005	.057	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
01-21-97	1130	do.	<.005	.060	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
02-17-97	1120	do.	<.005	.062	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
03-05-97	0805	do.	<.005	.541	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
04-22-97	0950	do.	<.005	.121	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-01-97	0900	do.	<.005	.357	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
07-17-97	1115	do.	<.005	1.07	<.020	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
09-16-97	0920	do.	<.005	.044	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
10-23-97	0840	do.	<.005	.069	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
11-13-97	1055	do.	<.005	.045	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
12-11-97	1020	do.	<.005	.043	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
01-28-98	1010	do.	<.005	.030	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
02-17-98	1010	do.	<.005	2.08	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-26-98	0730	do.	<.005	.101	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-09-98	0830	do.	<.005	.244	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metolachlor (39415)	Metribuzin (82630)	Molinate (82671)	Napropamide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>													
06-09-98	1020	regular	<0.005	0.100	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	0.012	<0.002	0.042
07-09-98	1015	do.	<.005	.249	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
08-11-98	1035	do.	<.005	.170	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
09-14-98	1230	do.	<.005	.028	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>													
09-09-98	0957	regular	<.005	.044	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>													
10-17-96	0840	regular	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
11-06-96	0815	do.	<.005	.144	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
12-19-96	0910	do.	<.005	.344	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
01-21-97	0955	do.	<.005	.513	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
02-17-97	0930	do.	<.005	.233	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-05-97	1300	do.	<.005	1.97	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-01-97	0755	do.	<.005	6.11	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
07-17-97	0950	do.	<.005	.237	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.017
09-16-97	0805	do.	<.005	.053	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
10-22-97	1100	do.	<.005	.089	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
11-13-97	0920	do.	<.005	.054	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
12-11-97	1120	do.	<.005	.065	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
01-28-98	1125	do.	<.005	.087	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
02-17-98	0900	do.	.008	.606	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
03-26-98	1220	do.	<.005	.236	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
04-09-98	1045	do.	<.005	.174	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
06-09-98	0855	do.	<.005	.090	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
07-09-98	0900	do.	<.005	.202	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
08-11-98	0850	do.	<.005	.223	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
09-14-98	1050	do.	<.005	.039	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>													
10-23-96	1107	regular	<0.005	0.004	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	<0.018
12-11-96	1150	do.	<.005	.012	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
01-14-97	0950	do.	<.005	.006	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-19-97	1050	do.	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-18-97	1018	do.	<.005	3.56	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
05-03-97	1053	do.	<.005	2.86	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
04-02-98	0843	do.	<.005	1.74	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-06-98	0838	do.	<.005	.228	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
06-03-98	0906	do.	<.005	.243	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
07-08-98	0848	do.	<.005	.096	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
08-05-98	0837	do.	<.005	.016	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
08-05-98	0847	spike	.150	.137	.087	.101	.117	.112	.124	.097	.0940	.053	.122
09-02-98	0842	regular	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
09-02-98	0847	replicate	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>													
10-15-96	1120	regular	<.005	.035	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
11-12-96	1103	do.	<.005	.069	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
12-12-96	1340	do.	<.005	.060	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
01-15-97	0855	do.	<.005	.405	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
02-10-97	1015	do.	<.005	.235	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
10-10-96	1047	regular	<.005	.042	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
11-07-96	1018	do.	<.005	.114	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
12-05-96	0959	do.	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
01-13-97	1205	do.	<.005	.276	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
02-06-97	0923	do.	<.005	.685	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-12-97	1035	do.	<.005	.543	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
03-17-97	0945	do.	<.005	.214	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
03-17-97	0955	spike	0.107	0.348	0.099	0.110	0.096	0.122	0.114	0.105	0.102	0.074	0.133
03-24-97	1026	regular	<.005	.092	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-02-97	1026	do.	<.005	.059	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-08-97	1030	do.	<.005	.084	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-14-97	1235	do.	<.005	.115	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-21-97	1028	do.	<.005	.081	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-28-97	1006	blank	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
04-28-97	1026	regular	<.005	.216	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
05-05-97	1015	do.	<.005	.403	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
05-12-97	1022	do.	<.005	.165	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.002
05-19-97	1033	do.	<.005	.171	<.004	<.004	<.003	<.004	<.006	<.004	E.0346	<.002	E.002
05-27-97	0936	do.	<.005	1.55	.038	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
06-03-97	1116	do.	<.005	.063	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
06-09-97	0946	do.	<.005	.126	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
06-16-97	0943	do.	<.005	2.21	.007	<.004	<.003	<.004	<.006	<.004	.025	<.002	<.018
06-24-97	0951	do.	<.005	1.05	.014	<.004	<.003	<.004	<.006	<.004	.016	<.002	E.004
06-30-97	1022	do.	.038	.184	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.046
07-14-97	0944	do.	<.005	.246	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
07-28-97	0928	do.	<.005	.080	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
07-28-97	0933	replicate	<.005	.052	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
08-12-97	0916	regular	<.005	.044	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
08-25-97	1000	do.	<.005	.516	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
09-09-97	0945	do.	<.005	.179	E.003	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
09-24-97	0940	do.	<.005	.222	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
10-10-97	0938	do.	<.005	.112	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
10-10-97	0943	replicate	<.005	.113	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>													
10-21-97	0854	regular	<0.005	0.043	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.003
11-07-97	0919	do.	<.005	.032	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
11-18-97	0857	do.	<.005	.033	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
12-04-97	0919	do.	<.005	.096	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
01-08-98	0910	do.	<.005	.112	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
02-20-98	0941	do.	<.005	.071	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.002
03-18-98	0918	do.	<.005	.027	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
04-01-98	0945	do.	<.005	.359	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-07-98	0919	do.	<.005	.612	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
06-04-98	0933	do.	<.005	.135	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
06-10-98	1215	do.	<.005	1.99	.154	<.004	<.003	<.004	<.006	<.004	.026	<.002	<.018
06-12-98	1238	do.	<.005	8.72	.169	<.004	<.003	<.004	<.006	<.004	.111	<.002	E.008
06-22-98	1415	do.	<.005	3.11	.059	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.044
07-09-98	0924	do.	<.005	.235	<.004	<.004	<.003	<.004	<.006	<.004	.015	<.002	<.018
08-06-98	0855	do.	<.005	.374	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
09-03-98	0936	blank	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
09-03-98	0956	regular	<.005	.045	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>													
10-29-96	1030	regular	<.005	.070	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
11-13-96	1013	do.	<.005	.088	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
12-05-96	1030	do.	<.005	.114	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
01-22-97	0950	do.	<.005	.327	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
01-22-97	0955	replicate	<.005	.326	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
02-03-97	0938	regular	<.010	.336	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
03-13-97	0950	do.	<.005	1.01	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
05-07-97	0933	do.	<.005	1.40	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
04-03-98	0851	do.	<.005	.253	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
05-07-98	0827	regular	<0.005	0.289	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.008
06-04-98	0900	do.	<.005	.316	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
07-06-98	0847	do.	<.005	.713	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
08-04-98	1300	do.	<.005	.042	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
09-03-98	0840	do.	<.005	.055	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	<.005	.040	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.017
10-10-96	1020	replicate	<.005	.041	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.018
10-29-96	0855	regular	<.005	.064	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>													
10-08-96	1155	regular	<.005	.057	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.019
11-06-96	1038	do.	<.005	.078	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
12-03-96	1040	do.	<.005	.111	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
01-07-97	1115	do.	<.005	.096	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
02-05-97	1030	do.	<.005	.472	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
03-11-97	1220	do.	<.005	.704	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
03-11-97	1225	replicate	<.005	.686	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
03-20-97	0918	regular	<.005	1.43	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-20-97	0928	spike	.108	1.45	.094	.098	.106	.128	.106	.101	.104	.079	.110
03-27-97	0941	regular	<.005	1.03	<.050	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
03-31-97	0936	do.	<.005	1.11	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-10-97	0922	do.	<.005	.329	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
04-16-97	0931	do.	<.005	.241	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
04-23-97	0945	do.	<.005	.119	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-30-97	0956	do.	<.005	.183	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
05-07-97	0920	do.	<.005	2.05	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
05-14-97	0955	do.	<.005	.776	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
05-21-97	1028	do.	<.005	6.14	.055	<.004	<.003	<.004	<.006	<.004	E.085	<.002	E.005

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
05-29-97	1049	regular	<0.005	1.87	0.039	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.008
06-05-97	0940	do.	<.005	.450	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
06-12-97	0906	do.	<.005	.410	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
06-19-97	0908	do.	<.005	.436	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
06-19-97	0918	spike	1.81	6.65	1.22	<.004	<.003	<.004	<.006	<.004	<.004	<.002	2.27
06-25-97	0955	regular	<.005	.466	<.004	E.0019	<.003	<.004	<.006	<.004	.008	<.002	E.013
07-02-97	0912	do.	<.005	1.66	.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
07-16-97	0941	do.	<.005	.323	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.020
07-31-97	0927	do.	<.005	.181	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
08-13-97	0918	do.	<.005	.081	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
08-28-97	0919	do.	<.005	.060	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
09-05-97	0906	do.	<.005	.061	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
09-23-97	0936	do.	<.005	.048	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
10-06-97	1030	blank	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
10-06-97	1050	regular	<.005	.044	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
10-22-97	0951	do.	<.005	.094	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
11-03-97	0953	do.	<.005	.052	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
11-19-97	0935	do.	<.005	.054	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
11-19-97	0945	spike	1.61	5.37	1.64	<.004	<.003	<.004	<.006	<.004	<.004	<.002	2.13
12-01-97	0928	regular	<.005	.050	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-05-98	0938	do.	<.005	.076	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
01-05-98	0948	spike	.070	.181	.079	.098	.096	.083	.093	.097	.076	.056	.102
02-17-98	0936	regular	<.005	.271	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
03-09-98	1000	do.	<.005	.280	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
03-30-98	0905	do.	<.005	.100	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
04-04-98	1020	do.	<.005	.240	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>													
05-04-98	0909	regular	<0.005	0.163	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	<0.004	<0.002	E0.007
06-01-98	0913	do.	<.005	1.82	<.020	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.082
06-19-98	1002	do.	<.005	1.96	.030	<.004	<.003	<.004	<.006	<.004	.015	<.002	E.012
07-02-98	1049	do.	<.005	.999	.011	<.004	<.003	<.004	<.006	<.004	<.010	<.002	E.010
08-03-98	0925	do.	<.005	.296	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.009
08-31-98	0940	do.	<.005	.094	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.012
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
10-07-96	1020	regular	<.005	.112	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.044
11-04-96	1100	do.	<.005	.242	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
12-06-96	1045	do.	<.005	.077	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.040
01-02-97	1305	do.	<.005	.094	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.056
02-06-97	1115	do.	<.005	.181	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
03-20-97	1220	do.	<.005	.052	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
04-10-97	1130	do.	<.005	.058	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.011
05-06-97	1345	do.	<.005	1.43	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
06-05-97	1130	do.	<.005	1.07	.017	<.004	<.003	<.004	<.006	<.004	E.018	<.002	E.008
07-14-97	1230	do.	<.005	.360	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.018
08-11-97	1405	do.	<.005	.170	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.029
09-04-97	1110	do.	<.005	.170	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.038
10-07-97	1155	do.	<.005	.127	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.030
11-06-97	1125	do.	<.005	.047	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
12-01-97	1145	do.	<.005	.139	.036	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.006
01-15-98	1155	do.	<.005	.041	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005
02-05-98	1140	do.	<.005	.069	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.003
03-03-98	1040	do.	<.005	.033	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.004
04-07-98	1100	do.	<.005	.038	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-05-98	1300	do.	<.005	.455	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.005

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Malathion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Parathion-methyl (82667)	Pebulate (82669)	Pendi-methalin (82683)	Phorate (82664)	Prometon (04037)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)—Continued</b>													
06-02-98	1140	regular	<0.005	1.07	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004	0.009	<0.002	0.021
07-08-98	1210	do.	<.005	1.00	.051	<.004	<.003	<.004	<.006	<.004	<.020	<.002	E.011
08-04-98	1205	do.	<.005	E.130	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.017
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>													
10-09-96	0940	regular	<.005	.170	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.068
11-07-96	0909	do.	<.005	.130	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.025
12-04-96	0933	do.	<.005	.094	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.015
01-08-97	0930	do.	<.005	.057	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
02-06-97	0857	do.	<.005	.211	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.013
03-12-97	0930	do.	<.005	.214	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.008
03-31-98	0824	do.	<.005	.088	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	<.018
05-05-98	0830	do.	<.005	.800	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
05-26-98	1200	do.	<.005	9.61	.071	<.004	<.003	<.004	<.006	<.004	.045	<.002	.018
06-02-98	0820	do.	<.005	1.89	<.010	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.014
06-18-98	1044	do.	<.005	3.46	.035	<.004	<.003	<.004	<.006	<.004	.021	<.002	E.010
07-08-98	0930	do.	<.005	.976	.023	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.010
08-04-98	0810	do.	<.005	.092	<.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.007
09-01-98	0815	do.	<.005	.151	E.004	<.004	<.003	<.004	<.006	<.004	<.004	<.002	E.018

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>													
10-09-96	1043	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
11-06-96	1058	blank	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-06-96	1118	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-04-96	1011	do.	<.007	<.004	<.013	<.003	<.005	E.008	<.007	<.013	<.002	<.001	<.002
01-08-97	1103	do.	<.007	<.004	<.013	<.003	<.005	.016	<.007	<.013	<.002	<.001	<.002
01-08-97	1108	replicate	<.007	<.004	<.013	<.003	<.005	.018	<.007	<.013	<.002	<.001	<.002
02-05-97	1105	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-17-97	1305	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-05-97	1044	do.	<.007	<.004	<.013	<.003	.007	<.010	<.007	<.013	<.002	<.001	<.002
04-02-98	1443	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-06-98	1249	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-27-98	1335	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	.005
06-03-98	1450	do.	<.007	<.004	<.013	<.003	.017	<.010	<.007	<.013	<.002	<.001	<.002
06-20-98	1030	do.	<.007	<.004	<.013	<.003	.032	E.010	<.007	<.013	<.002	<.001	<.002
07-08-98	1315	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	1231	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	1241	spike	.140	.130	.142	.122	.112	.135	E.141	.080	.115	.115	.115
09-02-98	1308	regular	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
10-15-96	1120	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-13-96	0946	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-09-96	0924	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-13-97	1025	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-11-97	1017	do.	<.007	<.004	<.013	<.003	.012	<.010	<.007	<.013	<.002	<.001	<.002
03-20-97	0920	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-06-97	0937	do.	<.007	<.004	<.013	<.003	.007	E.009	<.007	<.013	<.002	<.001	<.002
04-02-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>													
05-06-98	0925	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
06-03-98	0915	do.	<.007	<.004	<.013	<.003	.027	<.010	<.007	<.013	<.002	<.001	<.002
06-17-98	1300	do.	<.007	<.004	<.013	<.003	.018	.010	<.007	<.013	<.002	<.001	E.002
07-09-98	0855	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
08-06-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-02-98	0915	do.	<.007	<.004	<.013	<.003	<.005	E.0087	<.007	<.013	<.002	<.001	<.002
09-02-98	0925	spike	<.007	<.004	3.13	<.003	3.32	<.010	<.007	<.013	<.002	<.001	<.002
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-96	1010	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-08-96	1015	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-05-96	0935	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-03-96	0928	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-09-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-04-97	1015	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-11-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-18-97	0856	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.004
03-25-97	0908	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.003
04-03-97	0847	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-09-97	0854	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-15-97	0925	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-22-97	0944	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.004
04-22-97	0954	spike	.131	.114	.098	.092	.098	.136	E.088	.074	.098	.084	.083
04-22-97	0955	do.	.138	.115	.096	.092	.100	E.191	E.090	.072	.098	.083	.085
04-29-97	0913	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.004
05-03-97	1046	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-13-97	0951	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006
05-20-97	0853	do.	E.006	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued													
05-28-97	0933	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	0.003
05-28-97	0943	spike	.118	.112	.078	.092	.102	.116	E.076	.078	.108	.095	.083
06-04-97	0921	regular	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002
06-10-97	0919	do.	E.003	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-17-97	0858	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-23-97	1156	do.	<.007	<.004	<.013	<.003	.015	<.010	<.007	<.013	<.002	<.001	.038
07-01-97	0905	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	E.003
07-15-97	0850	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
07-29-97	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.002
08-11-97	1200	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-26-97	0837	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-26-97	0847	spike	<.007	<.004	1.86	<.003	2.20	<.010	<.007	<.013	<.002	<.001	<.002
09-11-97	1005	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-25-97	0852	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-08-97	0928	blank	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-08-97	0948	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-20-97	1134	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-05-97	0857	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-17-97	1134	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-02-97	0908	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-06-98	0919	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-06-98	0929	spike	.112	.104	.074	.086	.105	.110	E.122	.055	.097	.096	.077
02-18-98	0924	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.005
03-12-98	0926	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-31-98	0922	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-05-98	0922	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.004

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>													
06-02-98	0904	regular	<0.007	<0.004	<0.013	<0.003	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	0.006
06-13-98	0928	do.	<.007	<.004	<.013	<.003	.011	<.010	<.007	<.013	<.002	<.001	<.002
06-23-98	0848	do.	<.007	<.004	<.013	<.003	.016	<.010	<.007	<.013	<.002	<.001	.012
07-07-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.010	<.001	E.002
07-07-98	0905	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.010	<.001	E.002
08-04-98	0903	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-01-98	0944	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>													
09-10-98	1030	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>													
10-07-96	1215	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-04-96	1210	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-04-96	1220	spike	.146	.134	.074	.134	.120	.182	E.071	.107	.121	.105	.117
12-02-96	1155	regular	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
01-06-97	1133	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-03-97	1108	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-10-97	1155	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-10-97	1200	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-30-98	1113	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-30-98	1118	replicate	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002
04-01-98	1033	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-04-98	1120	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.004
05-29-98	1246	do.	<.007	<.004	<.013	<.003	.691	<.010	<.007	<.013	<.002	<.001	.015
06-01-98	1318	do.	<.007	<.004	<.013	<.003	.078	<.010	<.007	<.013	<.002	<.001	<.002
06-12-98	1155	do.	<.007	<.004	<.013	<.003	.036	<.010	<.007	<.013	<.002	<.001	.0055
07-06-98	1213	do.	<.007	<.004	<.013	<.003	.041	<.010	<.007	<.013	<.002	<.001	E.002
08-03-98	1046	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>													
08-31-98	1102	regular	<0.007	<0.004	<0.013	<0.003	0.006	E0.0039	<0.007	<0.013	<0.002	<0.001	<0.002
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
10-16-96	0939	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-14-96	0925	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-14-96	0935	spike	.134	.122	.085	.124	.111	.176	E.0871	.099	.115	.102	.124
12-10-96	0935	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-14-97	1200	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-13-97	0949	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-19-97	0955	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-19-97	1005	spike	.126	.121	.101	.113	.113	.107	E.083	.104	.109	.103	.109
05-06-97	0914	regular	<.007	<.004	<.013	<.003	E.005	<.010	<.007	<.013	<.002	<.001	<.002
04-02-98	1355	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-08-98	0843	do.	<.007	<.004	<.020	<.003	.006	<.010	<.007	<.013	<.002	<.001	E.002
06-05-98	0900	do.	<.007	<.004	<.013	<.003	.017	<.010	<.007	<.013	<.002	<.001	<.002
06-13-98	0946	do.	E.002	<.004	<.013	<.003	.054	<.010	<.007	<.013	<.002	<.001	.008
06-26-98	0922	do.	<.007	<.004	<.013	<.003	.017	<.010	<.007	<.013	<.002	<.001	E.002
07-07-98	0920	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002
08-07-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-04-98	0850	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
09-04-98	0855	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
10-07-96	0948	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-12-96	0956	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-02-96	0945	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-06-97	0938	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-04-97	0919	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-10-97	1025	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.005

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>													
05-01-97	0914	regular	<0.007	<0.004	<0.013	<0.003	0.011	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
03-31-98	1245	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-05-98	1343	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-02-98	1325	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-10-98	0826	do.	<.007	<.004	<.013	<.003	.014	<.010	<.007	<.013	<.002	<.001	<.002
06-30-98	1239	do.	<.007	<.004	<.013	<.003	.021	<.010	<.007	<.013	<.002	<.001	E.002
07-10-98	0745	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
07-10-98	0750	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	0810	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	0812	spike	.135	.136	.107	.128	.102	.125	E.080	.087	.122	.110	.102
08-05-98	0813	do.	<.007	<.004	2.36	<.003	3.31	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	0814	do.	<.007	<.004	4.99	<.003	6.71	<.010	<.007	<.013	<.002	<.001	<.002
09-01-98	1300	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>													
10-07-96	0825	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-04-96	0810	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-06-96	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-02-97	0955	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-06-97	0825	do.	.023	<.004	<.013	<.003	.023	<.010	<.007	<.013	<.002	<.001	<.002
03-20-97	1015	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
04-10-97	0850	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
05-06-97	1515	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	E.004
06-05-97	0855	do.	<.007	<.004	<.013	<.003	.009	<.010	<.007	<.013	<.002	<.001	E.002
07-14-97	0920	do.	<.007	<.004	<.013	<.003	E.005	<.010	<.007	<.013	<.002	<.001	<.002
09-04-97	0845	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002
10-07-97	0935	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-06-97	1410	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>													
12-01-97	0935	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
01-08-98	0915	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
02-05-98	0910	do.	<.007	<.004	<.013	<.003	E.005	<.010	E.007	<.013	<.002	<.001	<.002
03-03-98	0835	do.	<.007	<.004	<.013	<.003	.005	<.010	<.007	<.013	<.002	<.001	<.002
04-07-98	0850	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
05-05-98	1415	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-02-98	0855	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
07-08-98	1000	do.	E.005	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-04-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>													
10-17-96	1010	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-06-96	0915	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-19-96	1015	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-21-97	1130	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-17-97	1120	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-05-97	0805	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-22-97	0950	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002
05-01-97	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
07-17-97	1115	do.	<.007	<.004	<.013	<.003	.011	<.010	<.007	<.013	<.002	<.001	E.003
09-16-97	0920	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-23-97	0840	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-13-97	1055	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
12-11-97	1020	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-28-98	1010	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-17-98	1010	do.	<.007	<.004	<.013	<.003	.071	<.010	<.007	<.013	<.002	<.001	<.002
03-26-98	0730	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-09-98	0830	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>													
06-09-98	1020	regular	<0.007	<0.004	<0.013	<0.003	0.055	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
07-09-98	1015	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-11-98	1035	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-14-98	1230	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>													
09-09-98	0957	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>													
10-17-96	0840	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-06-96	0815	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-19-96	0910	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-21-97	0955	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-17-97	0930	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002
03-05-97	1300	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002
05-01-97	0755	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002
07-17-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-16-97	0805	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-22-97	1100	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-13-97	0920	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-11-97	1120	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-28-98	1125	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-17-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-26-98	1220	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-09-98	1045	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-09-98	0855	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
07-09-98	0900	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-11-98	0850	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-14-98	1050	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>													
10-23-96	1107	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
12-11-96	1150	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-14-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-19-97	1050	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-18-97	1018	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.003
05-03-97	1053	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-02-98	0843	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-06-98	0838	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-03-98	0906	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	.006
07-08-98	0848	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	0837	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-05-98	0847	spike	.124	.125	.111	.114	.099	.110	E.073	.086	.111	.101	.094
09-02-98	0842	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-02-98	0847	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>													
10-15-96	1120	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-12-96	1103	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-12-96	1340	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-15-97	0855	do.	<.007	<.004	<.013	<.003	<.005	E.003	<.007	<.013	<.002	<.001	<.002
02-10-97	1015	do.	<.007	<.004	<.013	<.003	<.005	E.003	<.007	<.013	<.002	<.001	<.002
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
10-10-96	1047	regular	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
11-07-96	1018	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-05-96	0959	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-13-97	1205	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.005
02-06-97	0923	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.008
03-12-97	1035	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.002
03-17-97	0945	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued													
03-17-97	0955	spike	0.126	0.118	0.083	0.112	0.127	0.144	E0.092	0.103	0.102	0.094	0.106
03-24-97	1026	regular	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
04-02-97	1026	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-08-97	1030	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-14-97	1235	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-21-97	1028	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002
04-28-97	1006	blank	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-28-97	1026	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-05-97	1015	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-12-97	1022	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	.004
05-19-97	1033	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006
05-27-97	0936	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	E.002
06-03-97	1116	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
06-09-97	0946	do.	<.007	<.004	<.013	<.003	.022	<.010	<.007	<.013	<.002	<.001	<.002
06-16-97	0943	do.	<.007	<.004	<.013	<.003	.039	<.010	<.007	<.013	<.002	<.001	.005
06-24-97	0951	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	.004
06-30-97	1022	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.002
07-14-97	0944	do.	<.007	<.004	<.013	<.003	.005	<.010	<.007	<.013	<.002	<.001	<.002
07-28-97	0928	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
07-28-97	0933	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
08-12-97	0916	regular	<.007	<.004	<.013	<.003	.005	<.010	<.007	<.013	<.002	<.001	<.002
08-25-97	1000	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
09-09-97	0945	do.	<.007	<.004	<.013	<.003	.005	<.010	<.007	<.013	<.002	<.001	<.002
09-24-97	0940	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-10-97	0938	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-10-97	0943	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>													
10-21-97	0854	regular	<0.007	<0.004	<0.013	<0.003	E0.003	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
11-07-97	0919	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
11-18-97	0857	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
12-04-97	0919	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
01-08-98	0910	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
02-20-98	0941	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-18-98	0918	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-01-98	0945	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.002
05-07-98	0919	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006
06-04-98	0933	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
06-10-98	1215	do.	<.007	<.004	<.013	<.003	.028	<.010	<.007	<.013	<.002	<.001	.004
06-12-98	1238	do.	<.007	<.004	<.013	<.003	.041	<.010	<.007	<.013	<.002	<.001	.030
06-22-98	1415	do.	<.007	<.004	<.013	<.003	.029	<.010	<.007	<.013	<.002	<.001	.015
07-09-98	0924	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	E.004
08-06-98	0855	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-03-98	0936	blank	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-03-98	0956	regular	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>													
10-29-96	1030	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-13-96	1013	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-05-96	1030	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-22-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-22-97	0955	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-03-97	0938	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-13-97	0950	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-07-97	0933	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
04-03-98	0851	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>													
05-07-98	0827	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
06-04-98	0900	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
07-06-98	0847	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
08-04-98	1300	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-03-98	0840	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>													
10-10-96	1015	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-10-96	1020	replicate	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-29-96	0855	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)</b>													
10-08-96	1155	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-06-96	1038	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-03-96	1040	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-07-97	1115	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-05-97	1030	do.	<.007	<.004	<.013	<.003	.014	<.010	<.007	<.013	<.002	<.001	<.002
03-11-97	1220	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
03-11-97	1225	replicate	<.007	<.004	<.013	<.003	.007	<.010	<.007	<.013	<.002	<.001	<.002
03-20-97	0918	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-20-97	0928	spike	.114	.111	.084	.106	.111	.112	E.085	.098	.098	.091	.102
03-27-97	0941	regular	<.007	<.004	<.013	<.003	<.050	<.010	<.007	<.013	<.002	<.001	<.002
03-31-97	0936	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
04-10-97	0922	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-16-97	0931	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
04-23-97	0945	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	.004
04-30-97	0956	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002
05-07-97	0920	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
05-14-97	0955	do.	<.007	<.004	<.013	<.003	E.005	<.010	<.007	<.013	<.002	<.001	E.004
05-21-97	1028	do.	E.005	<.004	<.013	<.003	.030	<.010	<.007	<.013	<.002	<.001	.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued													
05-29-97	1049	regular	<0.007	<0.004	<0.013	<0.003	0.017	<0.010	<0.007	<0.013	<0.002	<0.001	E0.002
06-05-97	0940	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
06-12-97	0906	do.	<.007	<.004	<.013	<.003	.012	<.010	<.007	<.013	<.002	<.001	<.002
06-19-97	0908	do.	<.007	<.004	<.013	<.003	.012	<.010	<.007	<.013	<.002	<.001	<.002
06-19-97	0918	spike	<.007	<.004	3.16	<.003	2.24	<.010	<.007	<.013	<.002	<.001	<.002
06-25-97	0955	regular	<.007	<.004	<.013	<.003	.022	<.010	<.007	<.013	<.002	<.001	<.002
07-02-97	0912	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002
07-16-97	0941	do.	<.007	<.004	<.013	<.003	.007	<.010	<.007	<.013	<.002	<.001	<.002
07-31-97	0927	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
08-13-97	0918	do.	<.007	<.004	<.013	<.003	.021	<.010	<.007	<.013	<.002	<.001	<.002
08-28-97	0919	do.	<.007	<.004	<.013	<.003	.006	<.010	<.007	<.013	<.002	<.001	<.002
09-05-97	0906	do.	<.007	<.004	<.013	<.003	.008	<.010	<.007	<.013	<.002	<.001	<.002
09-23-97	0936	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-06-97	1030	blank	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
10-06-97	1050	regular	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
10-22-97	0951	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-03-97	0953	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-19-97	0935	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-19-97	0945	spike	<.007	<.004	2.05	<.003	2.04	<.010	<.007	<.013	<.002	<.001	<.002
12-01-97	0928	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-05-98	0938	do.	<.007	<.004	<.013	<.003	.005	<.010	<.007	<.013	<.002	<.001	<.002
01-05-98	0948	spike	.113	.110	.067	.090	.105	.100	E.081	.072	.107	.099	.066
02-17-98	0936	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-09-98	1000	do.	<.007	<.004	<.013	<.003	E.003	<.010	<.007	<.013	<.002	<.001	<.002
03-30-98	0905	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-04-98	1020	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>													
05-04-98	0909	regular	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
06-01-98	0913	do.	<.007	<.004	<.013	<.003	.015	<.010	<.007	<.013	<.002	<.001	<.002
06-19-98	1002	do.	<.007	<.004	<.013	<.003	.028	<.010	<.007	<.013	<.002	<.001	.007
07-02-98	1049	do.	<.007	<.004	<.013	<.003	.011	<.010	<.007	<.013	<.002	<.001	<.002
08-03-98	0925	do.	<.007	<.004	<.013	<.003	.014	<.010	<.007	<.013	<.002	<.001	<.002
08-31-98	0940	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>													
10-07-96	1020	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-04-96	1100	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-06-96	1045	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-02-97	1305	do.	<.007	<.004	<.013	<.003	.014	<.010	<.007	<.013	<.002	<.001	<.002
02-06-97	1115	do.	<.007	<.004	<.013	<.003	<.005	E.009	<.007	<.013	<.002	<.001	<.002
03-20-97	1220	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
04-10-97	1130	do.	<.007	<.004	<.013	<.003	<.005	.019	<.007	<.013	<.002	<.001	<.002
05-06-97	1345	do.	<.007	<.004	<.013	<.003	.025	<.010	<.007	<.013	<.002	<.001	<.002
06-05-97	1130	do.	<.007	<.004	<.013	<.003	.023	E.005	<.007	<.013	<.002	<.001	E.002
07-14-97	1230	do.	<.007	<.004	<.013	<.003	.013	<.010	<.007	<.013	<.002	<.001	<.002
08-11-97	1405	do.	<.007	<.004	<.013	<.003	.010	<.010	<.007	<.013	<.002	<.001	<.002
09-04-97	1110	do.	<.007	<.004	<.013	<.003	.006	.016	<.007	<.013	<.002	<.001	<.002
10-07-97	1155	do.	<.007	<.004	<.013	<.003	<.005	.013	<.007	<.013	<.002	<.001	<.002
11-06-97	1125	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
12-01-97	1145	do.	<.007	<.004	<.013	<.003	.012	<.010	<.007	<.013	<.002	<.001	<.002
01-15-98	1155	do.	<.007	<.004	<.013	<.003	E.004	<.010	<.007	<.013	<.002	<.001	<.002
02-05-98	1140	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
03-03-98	1040	do.	<.007	<.004	<.013	<.003	E.002	<.010	<.007	<.013	<.002	<.001	<.002
04-07-98	1100	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-05-98	1300	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Prop- achlor (04024)	Propanil (82679)	Propargite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)	Terbufos (82675)	Thio- bencarb (82681)	Triallate (82678)	Trifluralin (82661)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)—Continued</b>													
06-02-98	1140	regular	<0.007	<0.004	<0.013	<0.003	0.013	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
07-08-98	1210	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006
08-04-98	1205	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>													
10-09-96	0940	regular	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
11-07-96	0909	do.	<.007	<.004	<.013	<.003	<.005	E.004	<.007	<.013	<.002	<.001	<.002
12-04-96	0933	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
01-08-97	0930	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
02-06-97	0857	do.	<.007	<.004	<.013	<.003	.045	E.008	<.007	<.013	<.002	<.001	<.002
03-12-97	0930	do.	<.007	<.004	<.013	<.003	.011	<.010	<.007	<.013	<.002	<.001	<.002
03-31-98	0824	do.	<.007	<.004	<.013	<.003	<.005	.010	<.007	<.013	<.002	<.001	<.002
05-05-98	0830	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
05-26-98	1200	do.	.021	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	.006
06-02-98	0820	do.	<.007	<.004	<.013	<.003	.017	<.010	<.007	<.013	<.002	<.001	<.002
06-18-98	1044	do.	<.007	<.004	<.013	<.003	.028	<.010	<.007	<.013	<.002	<.001	<.002
07-08-98	0930	do.	<.007	<.004	<.013	<.003	.014	<.010	<.007	<.013	<.002	<.001	<.002
08-04-98	0810	do.	<.007	<.004	<.013	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002
09-01-98	0815	do.	<.007	<.004	<.013	<.003	.018	<.010	<.007	<.013	<.002	<.001	<.002

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>					
10-09-96	1043	regular	<0.002	<0.005	<0.006
11-06-96	1058	blank	<.002	<.005	<.006
11-06-96	1118	regular	<.002	<.005	<.006
12-04-96	1011	do.	<.002	<.005	<.006
01-08-97	1103	do.	<.002	<.005	<.006
01-08-97	1108	replicate	<.002	<.005	<.006
02-05-97	1105	regular	<.002	<.005	<.006
03-17-97	1305	do.	<.002	<.005	<.006
05-05-97	1044	do.	<.002	<.005	<.006
04-02-98	1443	do.	<.002	<.005	<.006
05-06-98	1249	do.	<.002	<.005	<.006
05-27-98	1335	do.	<.002	<.005	<.006
06-03-98	1450	do.	<.002	<.005	<.006
06-20-98	1030	do.	<.002	<.005	<.006
07-08-98	1315	do.	<.002	<.005	<.006
08-05-98	1231	do.	<.002	<.005	<.006
08-05-98	1241	spike	.131	.060	.077
09-02-98	1308	regular	<.002	<.005	<.006
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>					
10-15-96	1120	regular	<.002	<.005	<.006
11-13-96	0946	do.	<.002	<.005	<.006
12-09-96	0924	do.	<.002	<.005	<.006
01-13-97	1025	do.	<.002	<.005	<.006
02-11-97	1017	do.	<.002	<.005	<.006
03-20-97	0920	do.	<.002	<.005	<.006
05-06-97	0937	do.	<.002	<.005	<.006
04-02-98	0900	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)—Continued</b>					
05-06-98	0925	regular	<0.002	<0.005	<0.006
06-03-98	0915	do.	<.002	<.005	<.006
06-17-98	1300	do.	<.002	<.005	<.006
07-09-98	0855	do.	<.002	<.005	<.006
08-06-98	0900	do.	<.002	<.005	<.006
09-02-98	0915	do.	<.002	<.005	<.006
09-02-98	0925	spike	<.002	<.005	<.006
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>					
10-08-96	1010	regular	<.002	<.005	<.006
10-08-96	1015	replicate	<.002	<.005	<.006
11-05-96	0935	regular	<.002	<.005	<.006
12-03-96	0928	do.	<.002	<.005	<.006
01-09-97	0950	do.	<.002	<.005	<.006
02-04-97	1015	do.	<.002	<.005	<.006
03-11-97	0950	do.	<.002	<.005	<.006
03-18-97	0856	do.	<.002	<.005	<.006
03-25-97	0908	do.	<.002	<.005	<.006
04-03-97	0847	do.	<.002	<.005	<.006
04-09-97	0854	do.	<.002	<.005	<.006
04-15-97	0925	do.	<.002	<.005	<.006
04-22-97	0944	do.	<.002	<.005	<.006
04-22-97	0954	spike	.099	.012	.058
04-22-97	0955	do.	.107	.012	.056
04-29-97	0913	regular	<.002	<.005	<.006
05-03-97	1046	do.	<.002	<.005	<.006
05-13-97	0951	do.	<.002	<.005	<.006
05-20-97	0853	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued					
05-28-97	0933	regular	<0.002	<0.005	<0.006
05-28-97	0943	spike	.092	.010	.050
06-04-97	0921	regular	<.002	<.005	<.006
06-10-97	0919	do.	<.002	<.005	<.006
06-17-97	0858	do.	<.002	<.005	<.006
06-23-97	1156	do.	<.002	<.005	<.006
07-01-97	0905	do.	<.002	<.005	<.006
07-15-97	0850	do.	<.002	<.005	<.006
07-29-97	0900	do.	<.002	<.005	<.006
08-11-97	1200	do.	<.002	<.005	<.006
08-26-97	0837	do.	<.002	<.005	<.006
08-26-97	0847	spike	<.002	<.005	<.006
09-11-97	1005	regular	<.002	<.005	<.006
09-25-97	0852	do.	<.002	<.005	<.006
10-08-97	0928	blank	<.002	<.005	<.006
10-08-97	0948	regular	<.002	<.005	<.006
10-20-97	1134	do.	<.002	<.005	<.006
11-05-97	0857	do.	<.002	<.005	<.006
11-17-97	1134	do.	<.002	<.005	<.006
12-02-97	0908	do.	<.002	<.005	<.006
01-06-98	0919	do.	<.002	<.005	<.006
01-06-98	0929	spike	.092	.010	.065
02-18-98	0924	regular	<.002	<.005	<.006
03-12-98	0926	do.	<.002	<.005	<.006
03-31-98	0922	do.	<.002	<.005	<.006
05-05-98	0922	do.	<.002	<.005	<.006



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>					
06-02-98	0904	regular	<0.002	<0.005	<0.006
06-13-98	0928	do.	<.002	<.005	<.006
06-23-98	0848	do.	<.002	<.005	<.006
07-07-98	0900	do.	<.002	<.005	<.006
07-07-98	0905	replicate	<.002	<.005	<.006
08-04-98	0903	regular	<.002	<.005	<.006
09-01-98	0944	do.	<.002	<.005	<.006
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>					
09-10-98	1030	regular	<.002	<.005	<.006
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>					
10-07-96	1215	regular	<.002	<.005	<.006
11-04-96	1210	do.	<.002	<.005	<.006
11-04-96	1220	spike	.106	.017	.052
12-02-96	1155	regular	<.002	<.005	<.006
01-06-97	1133	do.	<.002	<.005	<.006
02-03-97	1108	regular	<.002	<.005	<.006
03-10-97	1155	do.	<.002	<.005	<.006
03-10-97	1200	replicate	<.002	<.005	<.006
03-30-98	1113	regular	<.002	<.005	<.006
03-30-98	1118	replicate	<.002	<.005	<.006
04-01-98	1033	regular	<.002	<.005	<.006
05-04-98	1120	do.	<.002	<.005	<.006
05-29-98	1246	do.	<.002	<.005	<.006
06-01-98	1318	do.	<.002	<.005	<.006
06-12-98	1155	do.	<.002	<.005	<.006
07-06-98	1213	do.	<.002	<.005	<.006
08-03-98	1046	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)—Continued</b>					
08-31-98	1102	regular	<0.002	<0.005	<0.006
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>					
10-16-96	0939	regular	<.002	<.005	<.006
11-14-96	0925	do.	<.002	<.005	<.006
11-14-96	0935	spike	.092	.027	.070
12-10-96	0935	regular	<.002	<.005	<.006
01-14-97	1200	do.	<.002	<.005	<.006
02-13-97	0949	do.	<.002	<.005	<.006
03-19-97	0955	do.	<.002	<.005	<.006
03-19-97	1005	spike	.117	.013	.073
05-06-97	0914	regular	<.002	<.005	<.006
04-02-98	1355	do.	<.002	<.005	<.006
05-08-98	0843	do.	<.002	<.005	<.006
06-05-98	0900	do.	<.002	<.005	<.006
06-13-98	0946	do.	<.002	<.005	<.006
06-26-98	0922	do.	<.002	<.005	<.006
07-07-98	0920	do.	<.002	<.005	<.006
08-07-98	0900	do.	<.002	<.005	<.006
09-04-98	0850	do.	<.002	<.005	<.006
09-04-98	0855	replicate	<.002	<.005	<.006
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>					
10-07-96	0948	regular	<.002	<.005	<.006
11-12-96	0956	do.	<.002	<.005	<.006
12-02-96	0945	do.	<.002	<.005	<.006
01-06-97	0938	do.	<.002	<.005	<.006
02-04-97	0919	do.	<.002	<.005	<.006
03-10-97	1025	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)—Continued</b>					
05-01-97	0914	regular	<0.002	<0.005	<0.006
03-31-98	1245	do.	<.002	<.005	<.006
05-05-98	1343	do.	<.002	<.005	<.006
06-02-98	1325	do.	<.002	<.005	<.006
06-10-98	0826	do.	<.002	<.005	<.006
06-30-98	1239	do.	<.002	<.005	<.006
07-10-98	0745	do.	<.002	<.005	<.006
07-10-98	0750	replicate	<.002	<.005	<.006
08-05-98	0810	regular	<.002	<.005	<.006
08-05-98	0812	spike	.132	.058	.075
08-05-98	0813	do.	<.002	.007	.010
08-05-98	0814	do.	<.002	<.005	<.006
09-01-98	1300	regular	<.002	<.005	<.006
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>					
10-07-96	0825	regular	<.002	<.005	<.006
11-04-96	0810	do.	<.002	<.005	<.006
12-06-96	0900	do.	<.002	<.005	<.006
01-02-97	0955	do.	<.002	<.005	<.006
02-06-97	0825	do.	<.002	<.005	<.006
03-20-97	1015	do.	<.002	<.005	<.006
04-10-97	0850	do.	.029	<.005	<.006
05-06-97	1515	do.	<.002	<.005	<.006
06-05-97	0855	do.	<.002	<.005	<.006
07-14-97	0920	do.	<.002	<.005	<.006
09-04-97	0845	do.	<.002	<.005	<.006
10-07-97	0935	do.	<.002	<.005	<.006
11-06-97	1410	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>					
12-01-97	0935	regular	<0.002	<0.005	<0.006
01-08-98	0915	do.	<.002	<.005	<.006
02-05-98	0910	do.	<.002	<.005	<.006
03-03-98	0835	do.	<.002	<.005	<.006
04-07-98	0850	do.	<.002	<.005	<.006
05-05-98	1415	do.	<.002	<.005	<.006
06-02-98	0855	do.	<.002	<.005	<.006
07-08-98	1000	do.	<.002	<.005	<.006
08-04-98	0900	do.	<.002	<.005	<.006
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>					
10-17-96	1010	regular	<.002	<.005	<.006
11-06-96	0915	do.	<.002	<.005	<.006
12-19-96	1015	do.	<.002	<.005	<.006
01-21-97	1130	do.	<.002	<.005	<.006
02-17-97	1120	do.	<.002	<.005	<.006
03-05-97	0805	do.	<.002	<.005	<.006
04-22-97	0950	do.	<.002	<.005	E.002
05-01-97	0900	do.	<.002	<.005	<.006
07-17-97	1115	do.	<.002	<.005	<.006
09-16-97	0920	do.	<.002	<.005	<.006
10-23-97	0840	do.	<.002	<.005	<.006
11-13-97	1055	do.	<.002	<.005	<.006
12-11-97	1020	do.	<.002	<.005	<.006
01-28-98	1010	do.	<.002	<.005	<.006
02-17-98	1010	do.	<.002	<.005	<.006
03-26-98	0730	do.	<.002	<.005	<.006
04-09-98	0830	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>					
06-09-98	1020	regular	<0.002	<0.005	<0.006
07-09-98	1015	do.	<.002	<.005	<.006
08-11-98	1035	do.	<.002	<.005	<.006
09-14-98	1230	do.	<.002	<.005	<.006
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>					
09-09-98	0957	regular	<.002	<.005	<.006
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>					
10-17-96	0840	regular	<.002	<.005	<.006
11-06-96	0815	do.	<.002	<.005	<.006
12-19-96	0910	do.	<.002	<.005	<.006
01-21-97	0955	do.	<.002	<.005	<.006
02-17-97	0930	do.	<.002	<.005	<.006
03-05-97	1300	do.	<.002	<.005	<.006
05-01-97	0755	do.	<.002	<.005	<.006
07-17-97	0950	do.	<.002	<.005	<.006
09-16-97	0805	do.	<.002	<.005	<.006
10-22-97	1100	do.	<.002	<.005	<.006
11-13-97	0920	do.	<.002	<.005	<.006
12-11-97	1120	do.	<.002	<.005	<.006
01-28-98	1125	do.	<.002	<.005	<.006
02-17-98	0900	do.	<.002	<.005	<.006
03-26-98	1220	do.	<.002	<.005	<.006
04-09-98	1045	do.	<.002	<.005	<.006
06-09-98	0855	do.	<.002	<.005	<.006
07-09-98	0900	do.	<.002	<.005	<.006
08-11-98	0850	do.	<.002	<.005	<.006
09-14-98	1050	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>					
10-23-96	1107	regular	<0.002	<0.005	<0.006
12-11-96	1150	do.	<.002	<.005	<.006
01-14-97	0950	do.	<.002	<.005	<.006
02-19-97	1050	do.	<.002	<.005	<.006
03-18-97	1018	do.	<.002	<.005	<.006
05-03-97	1053	do.	<.002	<.005	<.006
04-02-98	0843	do.	<.002	<.005	<.006
05-06-98	0838	do.	<.002	<.005	<.006
06-03-98	0906	do.	<.002	<.005	E.001
07-08-98	0848	do.	<.002	<.005	<.006
08-05-98	0837	do.	<.002	<.005	<.006
08-05-98	0847	spike	.119	.044	.086
09-02-98	0842	regular	<.002	<.005	<.006
09-02-98	0847	replicate	<.002	<.005	<.006
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>					
10-15-96	1120	regular	<.002	<.005	<.006
11-12-96	1103	do.	<.002	<.005	<.006
12-12-96	1340	do.	<.002	<.005	<.006
01-15-97	0855	do.	<.002	<.005	<.006
02-10-97	1015	do.	<.002	<.005	<.006
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>					
10-10-96	1047	regular	<.002	<.005	<.006
11-07-96	1018	do.	<.002	<.005	<.006
12-05-96	0959	do.	<.002	<.005	<.006
01-13-97	1205	do.	<.002	<.005	<.006
02-06-97	0923	do.	<.002	<.005	<.006
03-12-97	1035	do.	<.002	<.005	<.006
03-17-97	0945	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>					
03-17-97	0955	spike	0.105	0.012	0.066
03-24-97	1026	regular	<.002	<.005	<.006
04-02-97	1026	do.	<.002	<.005	<.006
04-08-97	1030	do.	<.002	<.005	<.006
04-14-97	1235	do.	<.002	<.005	<.006
04-21-97	1028	do.	<.002	<.005	<.006
04-28-97	1006	blank	<.002	<.005	<.006
04-28-97	1026	regular	<.002	<.005	<.006
05-05-97	1015	do.	<.002	<.005	<.006
05-12-97	1022	do.	<.002	<.005	<.006
05-19-97	1033	do.	<.002	<.005	<.006
05-27-97	0936	do.	<.002	<.005	<.006
06-03-97	1116	do.	<.002	<.005	<.006
06-09-97	0946	do.	<.002	<.005	<.006
06-16-97	0943	do.	<.002	<.005	<.006
06-24-97	0951	do.	<.002	<.005	<.006
06-30-97	1022	do.	<.002	<.005	<.006
07-14-97	0944	do.	<.002	<.005	<.006
07-28-97	0928	do.	<.002	<.005	<.006
07-28-97	0933	replicate	<.002	<.005	<.006
08-12-97	0916	regular	<.002	<.005	<.006
08-25-97	1000	do.	<.002	<.005	<.006
09-09-97	0945	do.	<.002	<.005	<.006
09-24-97	0940	do.	<.002	<.005	<.006
10-10-97	0938	do.	<.002	<.005	<.006
10-10-97	0943	replicate	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>					
10-21-97	0854	regular	<0.002	<0.005	<0.006
11-07-97	0919	do.	<.002	<.005	<.006
11-18-97	0857	do.	<.002	<.005	<.006
12-04-97	0919	do.	<.002	<.005	<.006
01-08-98	0910	do.	<.002	<.005	<.006
02-20-98	0941	do.	<.002	<.005	<.006
03-18-98	0918	do.	<.002	<.005	<.006
04-01-98	0945	do.	<.002	<.005	<.006
05-07-98	0919	do.	<.002	<.005	<.006
06-04-98	0933	do.	<.002	<.005	<.006
06-10-98	1215	do.	<.002	<.005	<.006
06-12-98	1238	do.	<.002	<.005	<.006
06-22-98	1415	do.	<.002	<.005	<.006
07-09-98	0924	do.	<.002	<.005	<.006
08-06-98	0855	do.	<.002	<.005	<.006
09-03-98	0936	blank	<.002	<.005	<.006
09-03-98	0956	regular	<.002	<.005	<.006
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>					
10-29-96	1030	regular	<.002	<.005	<.006
11-13-96	1013	do.	<.002	<.005	<.006
12-05-96	1030	do.	<.002	<.005	<.006
01-22-97	0950	do.	<.002	<.005	<.006
01-22-97	0955	replicate	<.002	<.005	<.006
02-03-97	0938	regular	<.002	<.005	<.006
03-13-97	0950	do.	<.002	<.005	<.006
05-07-97	0933	do.	<.002	<.005	<.006
04-03-98	0851	do.	<.002	<.005	<.006



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)—Continued</b>					
05-07-98	0827	regular	<0.002	<0.005	<0.006
06-04-98	0900	do.	<.002	<.005	<.006
07-06-98	0847	do.	<.002	<.005	<.006
08-04-98	1300	do.	<.002	<.005	<.006
09-03-98	0840	do.	<.002	<.005	<.006
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>					
10-10-96	1015	regular	<.002	<.005	<.006
10-10-96	1020	replicate	<.002	<.005	<.006
10-29-96	0855	regular	<.002	<.005	<.006
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)</b>					
10-08-96	1155	regular	<.002	<.005	<.006
11-06-96	1038	do.	<.002	<.005	<.006
12-03-96	1040	do.	<.002	<.005	<.006
01-07-97	1115	do.	<.002	<.005	<.006
02-05-97	1030	do.	<.002	<.005	<.006
03-11-97	1220	do.	<.002	<.005	<.006
03-11-97	1225	replicate	<.002	<.005	<.006
03-20-97	0918	regular	<.002	<.005	<.006
03-20-97	0928	spike	.104	.009	.056
03-27-97	0941	regular	<.002	<.005	<.006
03-31-97	0936	do.	<.002	<.005	<.006
04-10-97	0922	do.	<.002	<.005	<.006
04-16-97	0931	do.	<.002	<.005	<.006
04-23-97	0945	do.	<.002	<.005	E.002
04-30-97	0956	do.	<.002	<.005	<.006
05-07-97	0920	do.	<.002	<.005	<.006
05-14-97	0955	do.	<.002	<.005	<.006
05-21-97	1028	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued					
05-29-97	1049	regular	<0.002	<0.005	<0.006
06-05-97	0940	do.	<.002	<.005	<.006
06-12-97	0906	do.	<.002	<.005	<.006
06-19-97	0908	do.	<.002	<.005	<.006
06-19-97	0918	spike	<.002	<.005	<.006
06-25-97	0955	regular	<.002	<.005	<.006
07-02-97	0912	do.	<.002	<.005	<.006
07-16-97	0941	do.	<.002	<.005	<.006
07-31-97	0927	do.	<.002	<.005	<.006
08-13-97	0918	do.	<.002	<.005	<.006
08-28-97	0919	do.	<.002	<.005	<.006
09-05-97	0906	do.	<.002	<.005	<.006
09-23-97	0936	do.	<.002	<.005	<.006
10-06-97	1030	blank	<.002	<.005	<.006
10-06-97	1050	regular	<.002	<.005	<.006
10-22-97	0951	do.	<.002	<.005	<.006
11-03-97	0953	do.	<.002	<.005	<.006
11-19-97	0935	do.	<.002	<.005	<.006
11-19-97	0945	spike	<.002	<.005	<.006
12-01-97	0928	regular	<.002	<.005	<.006
01-05-98	0938	do.	<.002	<.005	<.006
01-05-98	0948	spike	.087	.009	.062
02-17-98	0936	regular	<.002	<.005	<.006
03-09-98	1000	do.	<.002	<.005	<.006
03-30-98	0905	do.	<.002	<.005	<.006
04-04-98	1020	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>					
05-04-98	0909	regular	<0.002	<0.005	<0.006
06-01-98	0913	do.	<.002	<.005	<.006
06-19-98	1002	do.	<.002	<.005	<.006
07-02-98	1049	do.	<.002	<.005	<.006
08-03-98	0925	do.	<.002	<.005	<.006
08-31-98	0940	do.	<.002	<.005	<.006
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>					
10-07-96	1020	regular	<.002	<.005	<.006
11-04-96	1100	do.	<.002	<.005	<.006
12-06-96	1045	do.	<.002	<.005	<.006
01-02-97	1305	do.	<.002	<.005	<.006
02-06-97	1115	do.	<.002	<.005	<.006
03-20-97	1220	do.	<.002	<.005	<.006
04-10-97	1130	do.	<.002	<.005	<.006
05-06-97	1345	do.	<.002	<.005	<.006
06-05-97	1130	do.	<.002	<.005	<.006
07-14-97	1230	do.	<.002	<.005	<.006
08-11-97	1405	do.	<.002	<.005	<.006
09-04-97	1110	do.	<.002	<.005	<.006
10-07-97	1155	do.	<.002	<.005	<.006
11-06-97	1125	do.	<.002	<.005	<.006
12-01-97	1145	do.	<.002	<.005	<.006
01-15-98	1155	do.	<.002	<.005	<.006
02-05-98	1140	do.	<.002	<.005	<.006
03-03-98	1040	do.	<.002	<.005	<.006
04-07-98	1100	do.	<.002	<.005	<.006
05-05-98	1300	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	alpha-HCH (34253)	cis-Permethrin (82687)	p,p'-DDE (34653)
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)—Continued</b>					
06-02-98	1140	regular	<0.002	<0.005	<0.006
07-08-98	1210	do.	<.002	<.005	<.006
08-04-98	1205	do.	<.002	<.005	<.006
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>					
10-09-96	0940	regular	<.002	<.005	<.006
11-07-96	0909	do.	<.002	<.005	<.006
12-04-96	0933	do.	<.002	<.005	<.006
01-08-97	0930	do.	<.002	<.005	<.006
02-06-97	0857	do.	<.002	<.005	<.006
03-12-97	0930	do.	<.002	<.005	<.006
03-31-98	0824	do.	<.002	<.005	<.006
05-05-98	0830	do.	<.002	<.005	<.006
05-26-98	1200	do.	<.002	<.005	<.006
06-02-98	0820	do.	<.002	<.005	<.006
06-18-98	1044	do.	<.002	<.005	<.006
07-08-98	0930	do.	<.002	<.005	<.006
08-04-98	0810	do.	<.002	<.005	<.006
09-01-98	0815	do.	<.002	<.005	<.006

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Acifluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bentazon (38711)	Bromacil (04029)	Bromoxynil (49311)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>												
05-05-97	1044	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>												
05-06-97	0937	regular	<.035	.230	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>												
03-11-97	0950	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
03-18-97	0856	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
03-25-97	0908	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-03-97	0847	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-09-97	0854	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-22-97	0944	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.018	<.035	<.035
04-29-97	0913	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.070	<.035	<.035
05-03-97	1046	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
05-13-97	0951	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
05-20-97	0853	do.	<.035	.170	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
05-28-97	0933	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
06-04-97	0921	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
06-10-97	0919	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
06-17-97	0858	do.	<.035	.050	<.035	<.035	<.016	<.016	<.021	E.010	<.035	<.035
06-23-97	1156	do.	<.035	.210	<.035	.050	<.016	<.016	<.021	<.014	<.035	<.035
07-01-97	0905	do.	<.035	E.003	<.035	<.035	<.016	<.016	<.021	.130	<.035	<.035
07-15-97	0850	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	<.035
07-29-97	0900	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.090	<.035	<.035
08-11-97	1200	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.030	<.035	<.035
08-26-97	0837	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
09-11-97	1005	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
09-25-97	0852	do.	<.035	.050	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Acifluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bentazon (38711)	Bromacil (04029)	Bromoxynil (49311)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>												
10-08-97	0928	blank	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
10-08-97	0948	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.030	<.035	<.035
10-20-97	1134	do.	<.035	.070	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
11-05-97	0857	do.	<.035	E.230	<.035	<.035	<.016	<.016	<.021	.070	<.035	<.035
11-17-97	1134	do.	<.035	.240	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
12-02-97	0908	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
01-06-98	0919	do.	<.035	E.100	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
02-18-98	0924	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
03-12-98	0926	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>												
05-06-97	0914	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.030	<.035	<.035
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>												
05-01-97	0914	regular	<.035	E1.01	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
05-08-97	0903	do.	<.035	E1.54	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>												
03-12-97	1035	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.120	<.035	<.035
03-17-97	0945	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.080	<.035	<.035
03-24-97	1026	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	<.035
04-02-97	1026	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
04-08-97	1030	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
04-14-97	1235	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
04-21-97	1028	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
04-28-97	1006	blank	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-28-97	1026	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.060	<.035	<.035
05-05-97	1015	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	<.035
05-12-97	1022	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.080	<.035	<.035
05-19-97	1033	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
05-27-97	0936	do.	<.035	.060	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Acifluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bentazon (38711)	Bromacil (04029)	Bromoxynil (49311)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>												
06-03-97	1116	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
06-09-97	0946	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.100	<.035	<.035
06-16-97	0943	do.	<.035	E.020	<.035	<.035	<.016	<.016	<.021	E.230	<.035	E.220
06-24-97	0951	do.	<.035	.150	<.035	.050	<.016	<.016	<.021	E1.78	<.035	<.035
06-30-97	1022	do.	<.035	.140	<.035	<.035	<.016	<.016	<.021	E.540	<.035	<.035
07-28-97	0928	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.015	<.035	<.035
07-28-97	0933	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.014	<.035	<.035
08-12-97	0916	regular	<.035	.150	<.035	<.035	<.016	<.016	<.021	.100	<.035	<.035
08-25-97	1000	do.	<.035	.260	<.035	E.020	<.016	<.016	<.021	.050	<.035	<.035
09-09-97	0945	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
09-24-97	0940	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
10-10-97	0938	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
10-10-97	0943	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
10-21-97	0854	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.080	<.035	<.035
11-07-97	0919	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.060	<.035	<.035
11-18-97	0857	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.070	<.035	<.035
12-04-97	0919	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.090	<.035	<.035
01-08-98	0910	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.100	<.035	<.035
02-20-98	0941	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.120	<.035	<.035
03-18-98	0918	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.040	<.035	<.035
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>												
05-07-97	0933	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>												
03-11-97	1220	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
03-11-97	1225	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
03-27-97	0941	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-10-97	0922	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
04-23-97	0945	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Acifluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bentazon (38711)	Bromacil (04029)	Bromoxynil (49311)
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>												
04-30-97	0956	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	E0.020	<0.035	<0.035
05-07-97	0920	do.	<.035	.200	<.035	<.035	<.016	<.016	<.021	E.020	<.035	<.035
05-14-97	0955	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
05-21-97	1028	do.	<.035	.980	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
05-29-97	1049	do.	<.035	.220	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
06-05-97	0940	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
06-12-97	0906	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.020	<.035	<.035
06-19-97	0908	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	E.020
06-25-97	0955	do.	<.035	<.035	<.035	.040	<.016	<.016	<.021	E.330	<.035	<.035
07-02-97	0912	do.	<.035	<.035	<.035	.090	<.016	<.016	<.021	E.990	<.035	<.035
07-16-97	0941	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.250	<.035	<.035
07-31-97	0927	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.150	<.035	<.035
08-13-97	0918	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.070	<.035	<.035
08-28-97	0919	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	<.035
09-05-97	0906	do.	<.035	.190	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
09-23-97	0936	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.040	<.035	<.035
10-06-97	1030	blank	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
10-06-97	1050	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
10-22-97	0951	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
11-03-97	0953	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
11-19-97	0935	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
12-01-97	0928	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	.040	<.035	<.035
01-05-98	0938	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
02-17-98	0936	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	<.014	<.035	<.035
03-09-98	1000	do.	<.035	<.150	<.240	<.035	<.550	<.100	<.021	E.020	<.035	<.035



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbofuran (49309)	3-Hydroxy- carbofuran (49308)	Chloramben (49307)	Chloro- thalonil (49306)	Clopyralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlobenil (49303)	Dichlorprop (49302)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>												
05-05-97	1044	regular	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>												
05-06-97	0937	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>												
04-22-97	0944	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-29-97	0913	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-03-97	1046	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-13-97	0951	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-20-97	0853	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-28-97	0933	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-04-97	0921	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-10-97	0919	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-17-97	0858	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	.050	<.020	<.032
06-23-97	1156	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E1.14	<.020	<.032
07-01-97	0905	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E.530	<.020	<.032
07-15-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
07-29-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-11-97	1200	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-26-97	0837	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-11-97	1005	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-25-97	0852	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-08-97	0928	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-08-97	0948	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-20-97	1134	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11-05-97	0857	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11-17-97	1134	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
12-02-97	0908	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbofuran (49309)	3-Hydroxy- carbofuran (49308)	Chloramben (49307)	Chloro- thalonil (49306)	Clopyralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlobenil (49303)	Dichlorprop (49302)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>												
01-06-98	0919	regular	<0.008	<0.120	<0.014	<0.420	<0.480	<0.230	<0.017	<0.035	<1.20	<0.032
02-18-98	0924	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
03-12-98	0926	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>												
05-06-97	0914	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>												
05-01-97	0914	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-08-97	0903	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>												
03-12-97	1035	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
03-17-97	0945	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
03-24-97	1026	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-02-97	1026	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-08-97	1030	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-14-97	1235	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-21-97	1028	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-28-97	1006	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-28-97	1026	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-05-97	1015	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-12-97	1022	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-19-97	1033	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-27-97	0936	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-03-97	1116	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-09-97	0946	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-16-97	0943	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-24-97	0951	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	.170	<.020	<.032
06-30-97	1022	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
07-28-97	0928	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbofuran (49309)	3-Hydroxy- carbofuran (49308)	Chloramben (49307)	Chloro- thalonil (49306)	Clopyralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlobenil (49303)	Dichlorprop (49302)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>												
07-28-97	0933	replicate	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
08-12-97	0916	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-25-97	1000	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-09-97	0945	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-24-97	0940	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-10-97	0938	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-10-97	0943	replicate	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-21-97	0854	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11-07-97	0919	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
11-18-97	0857	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
12-04-97	0919	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
01-08-98	0910	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
02-20-98	0941	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
03-18-98	0918	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>												
05-07-97	0933	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>												
03-11-97	1220	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
03-11-97	1225	replicate	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
03-27-97	0941	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-10-97	0922	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-23-97	0945	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-30-97	0956	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-07-97	0920	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-14-97	0955	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-21-97	1028	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-29-97	1049	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbofuran (49309)	3-Hydroxy- carbofuran (49308)	Chloramben (49307)	Chloro- thalonil (49306)	Clopyralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlobenil (49303)	Dichlorprop (49302)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued												
06-05-97	0940	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-12-97	0906	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	.050	<.020	<.032
06-19-97	0908	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	.060	<.020	<.032
06-25-97	0955	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
07-02-97	0912	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E.450	<.020	<.032
07-16-97	0941	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E.020	<.020	<.032
07-31-97	0927	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-13-97	0918	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-28-97	0919	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-05-97	0906	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
09-23-97	0936	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-06-97	1030	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-06-97	1050	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10-22-97	0951	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11-03-97	0953	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11-19-97	0935	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<.120	<.032
12-01-97	0928	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<.120	<.032
01-05-98	0938	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<.120	<.032
02-17-98	0936	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<.120	<.032
03-09-98	1000	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<.120	<.032
04-22-97	0944	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
04-29-97	0913	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-03-97	1046	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-13-97	0951	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-20-97	0853	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
05-28-97	0933	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbofuran (49309)	3-Hydroxy- carbofuran (49308)	Chloramben (49307)	Chloro- thalonil (49306)	Clopyralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlobenil (49303)	Dichlorprop (49302)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued												
06-04-97	0921	regular	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
06-10-97	0919	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
06-17-97	0858	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	.050	<.020	<.032
06-23-97	1156	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E1.14	<.020	<.032
07-01-97	0905	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	E.530	<.020	<.032
07-15-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
07-29-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
08-11-97	1200	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen-valerate (49298)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>												
05-05-97	1044	regular	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>												
05-06-97	0937	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>												
03-11-97	0950	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-18-97	0856	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-25-97	0908	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-03-97	0847	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-09-97	0854	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-22-97	0944	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-29-97	0913	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-03-97	1046	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-13-97	0951	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-20-97	0853	do.	<.035	E.030	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-28-97	0933	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-04-97	0921	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-10-97	0919	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-17-97	0858	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-23-97	1156	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-01-97	0905	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-15-97	0850	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-29-97	0900	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-11-97	1200	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-26-97	0837	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-11-97	1005	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-25-97	0852	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-08-97	0928	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen-valerate (49298)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>												
10-08-97	0948	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-20-97	1134	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11-05-97	0857	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11-17-97	1134	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
12-02-97	0908	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
01-06-98	0919	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
02-18-98	0924	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
03-12-98	0926	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>												
05-06-97	0914	regular	<.035	E.0300	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>												
05-01-97	0914	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-08-97	0903	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>												
03-12-97	1035	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-17-97	0945	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-24-97	1026	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-02-97	1026	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-08-97	1030	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-14-97	1235	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-21-97	1028	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-28-97	1006	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-28-97	1026	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-05-97	1015	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-12-97	1022	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-19-97	1033	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-27-97	0936	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-03-97	1116	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen-valerate (49298)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>												
06-09-97	0946	regular	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026
06-16-97	0943	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-24-97	0951	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-30-97	1022	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-28-97	0928	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-28-97	0933	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-12-97	0916	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-25-97	1000	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-09-97	0945	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-24-97	0940	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-10-97	0938	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-10-97	0943	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-21-97	0854	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11-07-97	0919	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
11-18-97	0857	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
12-04-97	0919	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
01-08-98	0910	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
02-20-98	0941	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
03-18-98	0918	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>												
05-07-97	0933	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>												
03-11-97	1220	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-11-97	1225	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
03-27-97	0941	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-10-97	0922	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
04-23-97	0945	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026



**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen-valerate (49298)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)—Continued												
04-30-97	0956	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-07-97	0920	do.	<.035	E.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-14-97	0955	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-21-97	1028	do.	<.035	E.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
05-29-97	1049	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-05-97	0940	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-12-97	0906	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-19-97	0908	do.	<.035	E.010	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
06-25-97	0955	do.	<.035	E.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-02-97	0912	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-16-97	0941	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
07-31-97	0927	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-13-97	0918	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
08-28-97	0919	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-05-97	0906	do.	<.035	E.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
09-23-97	0936	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-06-97	1030	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-06-97	1050	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10-22-97	0951	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11-03-97	0953	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11-19-97	0935	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
12-01-97	0928	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
01-05-98	0938	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
02-17-98	0936	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026
03-09-98	1000	do.	<.035	<.020	<.420	--	<.013	<.035	<.018	<.170	<.140	<.026

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naphthol (49295)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>													
05-05-97	1044	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>													
05-06-97	0937	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
03-11-97	0950	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-18-97	0856	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-25-97	0908	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-03-97	0847	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-09-97	0854	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-22-97	0944	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-29-97	0913	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-03-97	1046	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-13-97	0951	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-20-97	0853	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-28-97	0933	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-04-97	0921	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-10-97	0919	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-17-97	0858	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-23-97	1156	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-01-97	0905	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-15-97	0850	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-29-97	0900	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-11-97	1200	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-26-97	0837	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-11-97	1005	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-25-97	0852	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-08-97	0928	blank	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naphthol (49295)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>													
10-08-97	0948	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
10-20-97	1134	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
11-05-97	0857	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
11-17-97	1134	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
12-02-97	0908	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
01-06-98	0919	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
02-18-98	0924	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	.320
03-12-98	0926	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>													
05-06-97	0914	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>													
05-01-97	0914	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-08-97	0903	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>													
03-12-97	1035	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-17-97	0945	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-24-97	1026	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-02-97	1026	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-08-97	1030	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-14-97	1235	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-21-97	1028	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-28-97	1006	blank	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-28-97	1026	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-05-97	1015	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-12-97	1022	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-19-97	1033	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-27-97	0936	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-03-97	1116	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naphthol (49295)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>													
06-09-97	0946	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-16-97	0943	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-24-97	0951	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-30-97	1022	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-28-97	0928	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-28-97	0933	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-12-97	0916	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-25-97	1000	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-09-97	0945	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-24-97	0940	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-10-97	0938	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-10-97	0943	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-21-97	0854	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
11-07-97	0919	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
11-18-97	0857	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
12-04-97	0919	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
01-08-98	0910	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
02-20-98	0941	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
03-18-98	0918	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>													
05-07-97	0933	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
<b>05465500 Iowa River at Wapello, IA (site 11, fig. 1)</b>													
03-11-97	1220	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-11-97	1225	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
03-27-97	0941	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-10-97	0922	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
04-23-97	0945	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050

**Table 14.** Selected dissolved pesticide concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naphthol (49295)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
05465500 Iowa River at Wapello, IA (site 11, fig. 1)													
04-30-97	0956	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
05-07-97	0920	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-14-97	0955	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-21-97	1028	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
05-29-97	1049	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-05-97	0940	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-12-97	0906	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-19-97	0908	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
06-25-97	0955	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-02-97	0912	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-16-97	0941	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
07-31-97	0927	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-13-97	0918	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
08-28-97	0919	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-05-97	0906	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
09-23-97	0936	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-06-97	1030	blank	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-06-97	1050	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
10-22-97	0951	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
11-03-97	0953	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
11-19-97	0935	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
12-01-97	0928	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
01-05-98	0938	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
02-17-98	0936	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
03-09-98	1000	do.	<.017	--	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998

[%, percent; --, data not collected; E, estimated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbutylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05420680, Wapsipinicon River near Tripoli, IA (site 1, fig. 1)</b>						
10-09-96	1043	regular	105	117	95.4	--
11-06-96	1058	blank	94.7	107	87.2	--
11-06-96	1118	regular	112	123	97.2	--
12-04-96	1011	do.	96.8	104	81.9	--
01-08-97	1103	do.	107	122	103	--
01-08-97	1108	replicate	109	122	103	--
02-05-97	1105	regular	94.7	106	94.3	--
03-17-97	1305	do.	88.6	89.7	98.6	--
05-05-97	1044	do.	108	112	96.3	142
04-02-98	1443	do.	116	110	112	--
05-06-98	1249	do.	108	97.2	107	--
05-27-98	1335	do.	94.9	109	93.2	--
06-03-98	1450	do.	109	126	100	--
06-20-98	1030	do.	124	140	123	--
07-08-98	1315	do.	95.1	98.4	99.5	--
08-05-98	1231	do.	87.3	105	88.4	--
08-05-98	1241	spike	102	100	104	--
09-02-98	1308	regular	84.4	94.2	90.3	--
<b>05422000, Wapsipinicon River near DeWitt, IA (site 2, fig. 1)</b>						
10-15-96	1120	regular	101	107	93.1	--
11-13-96	0946	do.	92.2	106	88.6	--
12-09-96	0924	do.	98.0	103	81.5	--
01-13-97	1025	do.	100	121	102	--
02-11-97	1017	do.	98.4	104	86.0	--
03-20-97	0920	do.	90.1	98.5	91.7	--
05-06-97	0937	do.	110	113	98.5	120
04-02-98	0900	do.	104	104	106	--
05-06-98	0925	do.	104	85.7	107	--
06-03-98	0915	do.	94.7	101	81.2	--
06-17-98	1300	do.	112	122	114	--
07-09-98	0855	do.	100	108	94.4	--
08-06-98	0900	do.	81.5	113	83.4	--
09-02-98	0915	do.	90.8	103	87.8	--
09-02-98	0925	spike	84.7	101	86.3	--
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)</b>						
10-08-96	1010	regular	96.6	117	102	--
10-08-96	1015	replicate	103	115	102	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued						
11-05-96	0935	regular	99.5	109	89.8	--
12-03-96	0928	do.	83.2	93.9	75.7	--
01-09-97	0950	do.	106	121	103	--
02-04-97	1015	do.	85.6	102	88.4	--
03-11-97	0950	do.	88.8	96.8	85.7	--
03-18-97	0856	do.	93.0	90.9	99.0	96.0
03-25-97	0908	do.	91.3	95.5	97.0	110
04-03-97	0847	do.	83.2	95.2	89.9	89.0
04-09-97	0854	do.	90.7	99.8	105	80.0
04-15-97	0925	do.	87.2	107	87.6	--
04-22-97	0944	do.	96.4	94.6	77.1	84.0
04-22-97	0954	spike	92.8	83.0	66.8	--
04-22-97	0955	do.	86.9	78.6	63.0	--
04-29-97	0913	regular	97.6	104	93.7	69.0
05-03-97	1046	do.	96.8	93.8	86.4	76.0
05-13-97	0951	do.	85.1	101	86.2	72.0
05-20-97	0853	do.	99.1	106	107	114
05-28-97	0933	do.	90.9	92.9	70.8	68.0
05-28-97	0943	spike	99.0	100	91.7	--
06-04-97	0921	regular	107	110	97.2	77.0
06-10-97	0919	do.	94.4	106	106	80.0
06-17-97	0858	do.	119	154	106	74.0
06-23-97	1156	do.	104	108	113	107
07-01-97	0905	do.	104	116	100	68.0
07-15-97	0850	do.	102	117	109	92.0
07-29-97	0900	do.	63.1	78.1	70.4	93.0
08-11-97	1200	do.	89.1	94.6	92.8	85.0
08-26-97	0837	do.	90.0	103	98.2	94.0
08-26-97	0847	spike	79.6	102	87.9	--
09-11-97	1005	regular	79.1	90.3	94.7	86.0
09-25-97	0852	do.	79.0	89.3	92.5	73.0
10-08-97	0928	blank	65.8	74.7	84.7	86.0
10-08-97	0948	regular	91.4	98.2	115	95.0
10-20-97	1134	do.	87.8	113	91.8	88.0
11-05-97	0857	do.	86.6	106	83.0	74.0
11-17-97	1134	do.	103	98.2	86.1	75.0
12-02-97	0908	do.	102	109	88.3	103

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05449500, Iowa River near Rowan, IA (site 3, fig. 1)—Continued</b>						
01-06-98	0919	regular	99.1	113	103	75.0
01-06-98	0929	spike	104	104	101	--
02-18-98	0924	regular	93.7	119	114	--
03-12-98	0926	do.	89.2	107	106	85.0
03-31-98	0922	do.	113	111	113	--
05-05-98	0922	do.	115	93.6	105	--
06-02-98	0904	do.	106	120	104	--
06-13-98	0928	do.	106	113	93.2	--
06-23-98	0848	do.	137	130	108	--
07-07-98	0900	do.	106	115	71.0	--
07-07-98	0905	replicate	104	119	68.5	--
08-04-98	0903	regular	95.6	102	98.8	--
09-01-98	0944	do.	92.3	102	97.7	--
<b>05449600, Wheeler Creek near Rowan, IA (site f, fig. 1)</b>						
09-10-98	1030	regular	105	115	96.8	--
<b>05451210, South Fork Iowa River northeast of New Providence, IA (site 4, fig. 1)</b>						
10-07-96	1215	regular	100	121	100	--
11-04-96	1210	do.	99.1	107	88.0	--
11-04-96	1220	spike	102	109	90.2	--
12-02-96	1155	regular	92.0	107	79.9	--
01-06-97	1133	do.	99.9	123	96.9	--
02-03-97	1108	do.	104	115	99.2	--
03-10-97	1155	do.	87.5	97.1	94.0	--
03-10-97	1200	replicate	93.9	101	95.8	--
03-30-98	1113	regular	105	106	97.2	--
03-30-98	1118	replicate	113	112	109	--
04-01-98	1033	regular	171	168	157	--
05-04-98	1120	do.	115	95.4	104	--
05-29-98	1246	do.	91.9	102	78.2	--
06-01-98	1318	do.	96.6	95.0	80.2	--
06-12-98	1155	do.	112	122	94.8	--
07-06-98	1213	do.	102	113	64.8	--
08-03-98	1046	do.	91.9	105	95.3	--
08-31-98	1102	do.	87.4	97.6	93.9	--
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)</b>						
10-16-96	0939	regular	95.0	110	89.1	--
11-14-96	0925	do.	111	119	94.5	--
11-14-96	0935	spike	105	106	88.8	--
12-10-96	0935	regular	98.8	96.9	74.9	--



**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05453100, Iowa River at Marengo, IA (site 5, fig. 1)—Continued</b>						
01-14-97	1200	regular	109	123	109	--
02-13-97	0949	do.	103	114	95.1	--
03-19-97	0955	do.	88.1	91.7	88.8	--
03-19-97	1005	spike	89.6	92.0	90.2	--
05-06-97	0914	regular	142	146	136	95.0
04-02-98	1355	do.	109	105	109	--
05-08-98	0843	do.	114	95.6	121	--
06-05-98	0900	do.	93.2	100	92.3	--
06-13-98	0946	do.	115	121	92.2	--
06-26-98	0922	do.	97.6	112	108	--
07-07-98	0920	do.	110	114	79.1	--
08-07-98	0900	do.	93.8	113	86.4	--
09-04-98	0850	do.	91.3	101	87.5	--
09-04-98	0855	replicate	89.5	99.3	84.9	--
<b>05455100, Old Man's Creek near Iowa City, IA (site 6, fig. 1)</b>						
10-07-96	0948	regular	102	109	93.4	--
11-12-96	0956	do.	95.6	108	83.2	--
12-02-96	0945	do.	91.9	106	84.5	--
01-06-97	0938	do.	103	105	96.8	--
02-04-97	0919	do.	105	126	98.7	--
03-10-97	1025	do.	90.9	96.5	94.0	--
05-01-97	0914	do.	105	101	98.5	82.0
03-31-98	1245	do.	106	96.5	96.5	118
05-05-98	1343	do.	105	88.3	109	--
06-02-98	1325	do.	94.7	93.0	87.0	--
06-10-98	0826	do.	107	111	85.2	--
06-30-98	1239	do.	119	129	101	--
07-10-98	0745	do.	105	103	109	--
07-10-98	0750	replicate	100	106	105	--
08-05-98	0810	regular	95.1	104	109	--
08-05-98	0812	spike	101	109	97.3	--
08-05-98	0813	do.	103	138	99.5	--
08-05-98	0814	do.	106	104	97.7	--
09-01-98	1300	regular	90.1	102	92.4	--
<b>05455570, English River at Riverside, IA (site i, fig. 1)</b>						
10-07-96	0825	regular	95.6	105	88.7	--
11-04-96	0810	do.	99.6	113	85.9	--
12-06-96	0900	do.	98.1	103	80.5	--
01-02-97	0955	do.	98.4	116	91.7	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05455570, English River at Riverside, IA (site i, fig. 1)—Continued</b>						
02-06-97	0825	regular	103	116	95.5	--
03-20-97	1015	do.	84.0	84.7	87.0	--
04-10-97	0850	do.	70.3	72.2	82.4	--
05-06-97	1515	do.	92.8	108	86.9	--
06-05-97	0855	do.	92.2	99.1	79.5	--
07-14-97	0920	do.	100	109	105	--
09-04-97	0845	do.	91.0	104	108	--
10-07-97	0935	do.	78.3	92.8	91.0	--
11-06-97	1410	do.	91.5	99.2	82.9	--
12-01-97	0935	do.	103	112	89.7	--
01-08-98	0915	do.	100	109	99.1	--
02-05-98	0910	do.	94.4	106	101	--
03-03-98	0835	do.	96.4	109	98.2	--
04-07-98	0850	do.	E227	E213	E234	--
05-05-98	1415	do.	101	90.2	102	--
06-02-98	0855	do.	92.0	93.8	92.9	--
07-08-98	1000	do.	91.3	88.3	86.7	--
08-04-98	0900	do.	98.8	103	96.1	--
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)</b>						
10-17-96	1010	regular	97.6	100	87.6	--
11-06-96	0915	do.	106	119	95.1	--
12-19-96	1015	do.	85.5	99.4	70.8	--
01-21-97	1130	do.	102	123	103	--
02-17-97	1120	do.	87.2	104	90.9	--
03-05-97	0805	do.	91.6	93.6	89.9	--
04-22-97	0950	do.	81.7	77.4	64.2	--
05-01-97	0900	do.	85.7	88.0	80.0	--
07-17-97	1115	do.	98.2	114	112	--
09-16-97	0920	do.	76.9	96.5	95.7	--
10-23-97	0840	do.	73.8	87.9	77.9	--
11-13-97	1055	do.	102	110	94.7	--
12-11-97	1020	do.	95.5	114	100	--
01-28-98	1010	do.	95.6	108	101	--
02-17-98	1010	do.	100	112	104	--
03-26-98	0730	do.	104	106	110	--
04-09-98	0830	do.	112	108	115	--
06-09-98	1020	do.	102	106	92.6	--
07-09-98	1015	do.	94.1	92.1	92.7	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbutylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05457750, Cedar River near Carville, IA (site k, fig. 1)—Continued</b>						
08-11-98	1035	regular	125	112	103	--
09-14-98	1230	do.	84.5	93.0	81.9	--
<b>05458870, Maynes Creek near Kesley, IA (site m, fig. 1)</b>						
09-09-98	0957	regular	100	110	104	--
<b>05458900, West Fork Cedar River near Finchford, IA (site n, fig. 1)</b>						
10-17-96	0840	regular	98.7	108	89.7	--
11-06-96	0815	do.	97.2	107	86.3	--
12-19-96	0910	do.	84.1	100	73.2	--
01-21-97	0955	do.	92.9	116	95.8	--
02-17-97	0930	do.	83.1	101	86.3	--
03-05-97	1300	do.	90.5	97.3	92.8	--
05-01-97	0755	do.	95.8	94.6	85.7	--
07-17-97	0950	do.	99.1	112	107	--
09-16-97	0805	do.	79.3	91.6	99.2	--
10-22-97	1100	do.	99.2	108	90.0	--
11-13-97	0920	do.	99.1	104	95.6	--
12-11-97	1120	do.	94.6	121	105	--
01-28-98	1125	do.	96.3	106	103	--
02-17-98	0900	do.	95.5	104	103	--
03-26-98	1220	do.	114	110	119	--
04-09-98	1045	do.	129	123	133	--
06-09-98	0855	do.	97.4	118	106	--
07-09-98	0900	do.	89.5	85.9	84.8	--
08-11-98	0850	do.	122	102	104	--
09-14-98	1050	do.	86.8	95.5	81.1	--
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)</b>						
10-23-96	1107	regular	109	110	94.7	--
12-11-96	1150	do.	79.9	84.5	70.9	--
01-14-97	0950	do.	102	128	102	--
02-19-97	1050	do.	80.1	100	90.0	--
03-18-97	1018	do.	81.4	84.8	91.6	--
05-03-97	1053	do.	109	108	95.9	--
04-02-98	0843	do.	110	108	110	--
05-06-98	0838	do.	105	100	113	--
06-03-98	0906	do.	101	120	102	--
07-08-98	0848	do.	95.8	104	100	--
08-05-98	0837	do.	91.3	98.4	84.1	--
08-05-98	0847	spike	95.0	106	94.7	--
09-02-98	0842	regular	81.3	92.6	84.0	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05461390, Flood Creek near Powersville, IA (site 7, fig. 1)—Continued</b>						
09-02-98	0847	replicate	82.2	91.7	83.9	--
<b>05464020, Cedar River at Gilbertville, IA (site 8, fig. 1)</b>						
10-15-96	1120	regular	101	115	95.2	--
11-12-96	1103	do.	100	105	88.9	--
12-12-96	1340	do.	96.7	93.5	78.3	--
01-15-97	0855	do.	98.8	116	99.0	--
02-10-97	1015	do.	109	113	95.6	--
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)</b>						
10-10-96	1047	regular	101	117	99.2	--
11-07-96	1018	do.	99.5	108	85.8	--
12-05-96	0959	do.	93.4	102	82.2	--
01-13-97	1205	do.	94.5	113	95.7	--
02-06-97	0923	do.	104	114	98.5	--
03-12-97	1035	do.	85.8	91.9	91.5	87.0
03-17-97	0945	do.	86.3	92.7	93.1	86.0
03-17-97	0955	spike	101	102	101	--
03-24-97	1026	regular	93.1	110	110	86.0
04-02-97	1026	do.	85.9	97.3	96.9	90.0
04-08-97	1030	do.	89.6	93.3	100	79.0
04-14-97	1235	do.	88.0	103	83.8	97.0
04-21-97	1028	do.	88.7	88.7	71.1	88.0
04-28-97	1006	blank	86.8	90.2	87.6	75.0
04-28-97	1026	regular	95.1	104	94.8	70.0
05-05-97	1015	do.	103	113	94.2	73.0
05-12-97	1022	do.	85.8	105	86.7	75.0
05-19-97	1033	do.	102	108	108	79.0
05-27-97	0936	do.	90.8	106	93.3	84.0
06-03-97	1116	do.	101	107	99.1	78.0
06-09-97	0946	do.	94.1	110	104	77.0
06-16-97	0943	do.	99.0	118	107	82.0
06-24-97	0951	do.	92.4	107	107	114
06-30-97	1022	do.	89.4	98.1	86.1	92.0
07-14-97	0944	do.	103	124	111	--
07-28-97	0928	do.	122	150	133	89.0
07-28-97	0933	replicate	81.3	102	94.4	93.0
08-12-97	0916	regular	100	113	99.1	99.0
08-25-97	1000	do.	82.9	106	94.5	124
09-09-97	0945	do.	84.7	91.4	103	94.0

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbutylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05464220, Wolf Creek near Dysart, IA (site 9, fig. 1)—Continued</b>						
09-24-97	0940	regular	80.0	92.4	94.4	117
10-10-97	0938	do.	75.2	87.2	84.5	78.0
10-10-97	0943	replicate	81.5	98.1	94.8	90.0
10-21-97	0854	regular	84.0	114	88.5	83.0
11-07-97	0919	do.	84.0	97.2	79.9	70.0
11-18-97	0857	do.	104	106	90.4	72.0
12-04-97	0919	do.	96.2	107	82.7	103
01-08-98	0910	do.	98.2	120	104	75.0
02-20-98	0941	do.	87.0	106	107	88.0
03-18-98	0918	do.	84.1	89.7	99.1	90.0
04-01-98	0945	do.	107	109	100	--
05-07-98	0919	do.	106	96.3	106	--
06-04-98	0933	do.	101	109	104	--
06-10-98	1215	do.	111	116	87.1	--
06-12-98	1238	do.	122	138	96.4	--
06-22-98	1415	do.	132	135	106	--
07-09-98	0924	do.	97.9	107	104	--
08-06-98	0855	do.	102	103	97.1	--
09-03-98	0936	blank	80.4	94.7	84.1	--
09-03-98	0956	regular	84.2	97.2	87.5	--
<b>05464935, Cedar River at Nichols, IA (site 10a, fig. 1)</b>						
10-29-96	1030	regular	103	110	93.5	--
11-13-96	1013	do.	92.2	100	79.0	--
12-05-96	1030	do.	98.2	98.1	78.2	--
01-22-97	0950	do.	102	126	99.0	--
01-22-97	0955	replicate	102	115	96.4	--
02-03-97	0938	regular	99.8	103	94.2	--
03-13-97	0950	do.	93.7	89.2	94.1	--
05-07-97	0933	do.	108	109	96.8	109
04-03-98	0851	do.	105	101	104	--
05-07-98	0827	do.	108	99.2	110	--
06-04-98	0900	do.	86.0	97.4	90.3	--
07-06-98	0847	do.	106	116	73.6	--
08-04-98	1300	do.	87.4	113	97.1	--
09-03-98	0840	do.	86.5	105	89.6	--
<b>05465000, Cedar River near Conesville, IA (site 10b, fig. 1)</b>						
10-10-96	1015	regular	97.6	113	86.3	--
10-10-96	1020	replicate	102	115	91.0	--
10-29-96	0855	regular	90.0	111	94.3	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day-year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbutylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
05465500, Iowa River at Wapello, IA (site 11, fig. 1)						
10-08-96	1155	regular	105	112	96.2	--
11-06-96	1038	do.	110	118	97.8	--
12-03-96	1040	do.	93.4	93.4	81.7	--
01-07-97	1115	do.	99.0	118	97.7	--
02-05-97	1030	do.	106	116	97.9	--
03-11-97	1220	do.	94.9	96.3	94.6	98.0
03-11-97	1225	replicate	95.2	94.7	93.9	99.0
03-20-97	0918	regular	96.4	104	99.4	--
03-20-97	0928	spike	91.4	93.1	87.9	--
03-27-97	0941	regular	86.2	96.2	100	90.0
03-31-97	0936	do.	91.1	91.7	97.8	--
04-10-97	0922	do.	85.2	83.5	97.0	78.0
04-16-97	0931	do.	93.0	116	95.6	--
04-23-97	0945	do.	100	96.6	79.6	87.0
04-30-97	0956	do.	101	105	99.3	74.0
05-07-97	0920	do.	113	109	104	103
05-14-97	0955	do.	85.8	106	89.3	79.0
05-21-97	1028	do.	100	104	103	125
05-29-97	1049	do.	86.5	99.1	86.8	75.0
06-05-97	0940	do.	115	115	92.6	88.0
06-12-97	0906	do.	112	127	117	101
06-19-97	0908	do.	102	118	111	78.0
06-19-97	0918	spike	84.0	98.2	94.4	--
06-25-97	0955	regular	92.9	110	100	96.0
07-02-97	0912	do.	104	132	115	109
07-16-97	0941	do.	117	135	124	86.0
07-31-97	0927	do.	83.0	116	89.2	92.0
08-13-97	0918	do.	95.4	112	99.1	78.0
08-28-97	0919	do.	94.4	113	96.3	--
09-05-97	0906	do.	97.1	114	104	85.0
09-23-97	0936	do.	85.1	106	97.1	69.0
10-06-97	1030	blank	72.9	88.6	95.6	92.0
10-06-97	1050	regular	81.1	93.4	97.2	85.0
10-22-97	0951	do.	82.0	121	89.3	87.0
11-03-97	0953	do.	83.2	99.1	78.7	88.0
11-19-97	0935	do.	107	109	97.2	86.0
11-19-97	0945	spike	102	110	96.0	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
<b>05465500, Iowa River at Wapello, IA (site 11, fig. 1)—Continued</b>						
12-01-97	0928	regular	82.8	90.2	75.0	89.0
01-05-98	0938	do.	85.2	93.8	85.3	85.0
01-05-98	0948	spike	92.1	102	90.5	--
02-17-98	0936	regular	91.2	104	95.6	106
03-09-98	1000	do.	94.6	99.1	104	71.0
03-30-98	0905	do.	107	107	107	--
04-04-98	1020	do.	109	103	111	--
05-04-98	0909	do.	105	89.1	105	--
06-01-98	0913	do.	94.8	101	85.0	--
06-19-98	1002	do.	103	127	97.5	--
07-02-98	1049	do.	100	111	70.5	--
08-03-98	0925	do.	95.7	109	95.5	--
08-31-98	0940	do.	92.6	105	94.4	--
<b>05473400, Cedar Creek near Oakland Mills, IA (site v, fig. 1)</b>						
10-07-96	1020	regular	108	117	88.3	--
11-04-96	1100	do.	102	126	89.2	--
12-06-96	1045	do.	100	111	80.2	--
01-02-97	1305	do.	96.4	114	89.5	--
02-06-97	1115	do.	111	121	97.2	--
03-20-97	1220	do.	75.2	75.2	80.8	--
04-10-97	1130	do.	81.2	84.9	96.1	--
05-06-97	1345	do.	97.3	113	93.8	--
06-05-97	1130	do.	101	103	83.6	--
07-14-97	1230	do.	95.6	109	103	--
08-11-97	1405	do.	102	114	101	--
09-04-97	1110	do.	92.0	104	102	--
10-07-97	1155	do.	81.8	101	98.5	--
11-06-97	1125	do.	84.4	95.4	79.7	--
12-01-97	1145	do.	100	109	87.7	--
01-15-98	1155	do.	100	110	93.8	--
02-05-98	1140	do.	92.0	107	101	--
03-03-98	1040	do.	101	104	103	--
04-07-98	1100	do.	115	109	119	--
05-05-98	1300	do.	103	87.6	94.6	--
06-02-98	1140	do.	93.8	95.6	95.6	--
07-08-98	1210	do.	89.8	82.4	81.4	--
08-04-98	1205	do.	E88.9	E101	E87.2	--
<b>05474000, Skunk River at Augusta, IA (site 12, fig. 1)</b>						
10-09-96	0940	regular	107	113	92.6	--

**Table 15.** Selected dissolved pesticide surrogate concentrations in samples from selected surface-water sampling sites, October 1996 through September 1998—Continued

Date (month-day- year)	Time (24-hour)	Type of sample	Diazinon (% recovery) (91063)	Terbuthylazine (% recovery) (91064)	alpha-HCH-d6 (% recovery) (91065)	BDMC (% recovery) (99835)
05474000, Skunk River at Augusta, IA (site 12, fig. 1)—Continued						
11-07-96	0909	regular	104	113	90.5	--
12-04-96	0933	do.	92.0	96.2	81.5	--
01-08-97	0930	do.	102	121	99.0	--
02-06-97	0857	do.	106	114	96.3	--
03-12-97	0930	do.	94.8	97.5	96.0	--
03-31-98	0824	do.	100	104	110	--
05-05-98	0830	do.	109	94.8	112	--
05-26-98	1200	do.	105	125	97.3	--
06-02-98	0820	do.	91.7	92.5	83.2	--
06-18-98	1044	do.	111	119	90.3	--
07-08-98	0930	do.	105	117	94.2	--
08-04-98	0810	do.	95.3	107	102	--
09-01-98	0815	do.	85.3	95.7	90.0	--



**Table 16.** Concentrations of organochlorine compounds in fish-tissue samples, 1997

[Concentrations are in micrograms per kilogram; g, grams; mm, millimeters; &lt;, less than indicated value; E, estimated; %, percent]

Map-index number (fig. 1)	Site identification	Date (month-day-year)	Species		Number of fish	Average weight (g)	Average total length (mm)	Weight of sample (g)	Aldrin	DCPA (dacthal)	Dieldrin	Endrin	Hepta-chlor
			Common name	Scientific name									
10b	05465000	09-12-97	Flathead catfish	<i>Pylodictis olivaris</i>	5	1709	441	10	<5.0	<5.0	6.2	<5.0	<5.0
11	05465500	09-09-97	Channel catfish	<i>Ictalurus punctatus</i>	4	382	368	10	<5.0	<5.0	28	<5.0	<5.0

Map-index number (fig. 1)	Site identification	Date (month-day-year)	Species		Heptachlor epoxide	Hetpachloro-benzene	gamma-HCH (lindane)	Lipids (percent)	Mirex	Oxychlor-dane	Penta-chloro-anisole	Total PCB
			Common name	Scientific name								
10b	05465000	09-12-97	Flathead catfish	<i>Pylodictis olivaris</i>	E1.0	<5.0	<5.0	1.35	<5.0	E1.4	<5.0	200
11	05465500	09-09-97	Channel catfish	<i>Ictalurus punctatus</i>	E7.0	<5.0	<5.0	6.3	<5.0	6.2	E3.3	830

Map-index number (fig. 1)	Site identification	Date (month-day-year)	Species		Toxaphene	alpha-HCH (alpha-BHC)	alpha d6 HCH (surrogate, % recovery)	beta-HCH (beta-BHC)	cis-Chlordane	cis-Nonachlor	delta-HCH (delta-BHC)	o, p'-DDD
			Common name	Scientific name								
10b	05465000	09-12-97	Flathead catfish	<i>Pylodictis olivaris</i>	<200	<5.0	64	<5.0	<5.0	E1.4	<5.0	200
11	05465500	09-09-97	Channel catfish	<i>Ictalurus punctatus</i>	<200	<5.0	79	<5.0	<5.0	6.2	E3.3	830

Map-index number (fig. 1)	Site identification	Date (month-day-year)	Species		o, p'-DDE	o, p'-DDT	o, p'-Methoxy-chlor	p, p'-DDD	p, p'-DDE	p, p'-DDT	p, p'-Methoxy-chlor	trans-Chlordane	trans-Nonachlor
			Common name	Scientific name									
10b	05465000	09-12-97	Flathead catfish	<i>Pylodictis olivaris</i>	<5.0	<5.0	<5.0	E6.9	25	E1.9	<5.0	E3.4	6.0
11	05465500	09-09-97	Channel catfish	<i>Ictalurus punctatus</i>	<5.0	<5.0	<5.0	E19	85	E2.8	<5.0	10	19

**Table 17.** Miscellaneous onsite determinations in samples from land-use wells, 1997

[NTU, Nephelometric turbidity units;  $\mu\text{S}/\text{cm}$ , microsiemens per centimeter at 25 °C; °C, degrees Celsius; mg/L, milligrams per liter; %, percent; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu\text{S}/\text{cm}$ ) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
Agricultural land-use wells												
1	405405091335001	07-02-97	1000	460	550	7.0	13.0	6.3	61	163	199	0
2	405601091551901	07-10-97	1210	45	244	5.3	10.5	.8	7	17	21	0
3	411511091155101	06-24-97	0900	0	233	5.8	12.5	9.6	92	9	11	0
4	411843092105101	07-14-97	1030	220	458	6.4	13.0	5.8	56	194	237	0
5	412755091114101	06-25-97	0830	7.0	508	6.7	11.0	.2	2	204	249	0
6	412927092575201	07-14-97	1430	0	680	6.5	12.5	3.4	33	191	233	0
7	413248092011301	07-07-97	1050	12	521	6.4	10.0	7.3	66	87	106	0
8	413540091341201	06-10-97	1215	110	625	7.0	11.5	6.1	57	272	332	0
9	414208092312601	07-09-97	1150	2.0	512	6.3	9.0	8.5	76	112	137	0
10	414912093284201	07-15-97	0850	0	547	6.7	10.0	.2	1	247	301	0
11	414958090230301	06-12-97	1005	9.0	497	7.5	10.5	.2	2	152	185	0
12	415527092190301	07-17-97	0850	2.0	623	6.9	10.5	.9	8	235	287	0
13	420117092505601	07-09-97	0850	2.0	785	6.5	9.0	.4	3	336	447	0
14	421115091250501	07-24-97	0910	1.0	484	7.4	10.0	10.2	93	128	156	0
15	421705092142501	07-22-97	1250	29	459	6.8	10.5	--	--	154	188	0
16	422518092144701	07-22-97	0930	17	344	7.4	10.0	2.5	23	152	185	0
17	422629092345001	07-23-97	1200	3.0	553	7.4	11.0	8.4	79	91	111	0
18	423419093172401	07-08-97	0950	51	667	7.1	10.0	3.0	28	339	414	0
19	423557091560501	08-27-97	0920	85	417	7.0	10.5	.2	2	218	270	0
20	423639092350901	06-17-97	1450	9.0	262	6.5	12.5	7.5	74	54	66	0
21	424203092551301	07-31-97	1230	5.0	385	7.3	13.5	.3	3	153	187	0
22	424548092101701	08-26-97	0910	4.0	422	5.7	15.5	5.2	55	31	37	0
23	425401093135201	07-31-97	0850	9.0	522	7.1	9.5	6.1	55	198	240	0
24	425756092162401	08-21-97	1210	12	269	5.6	15.0	1.7	17	16	21	0

**Table 17.** Miscellaneous onsite determinations in samples from land-use wells, 1997—Continued

Map index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu$ S/cm) (00095)	pH (standard units) (00400)	Water temperature ( $^{\circ}$ C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
Agricultural land-use wells—Continued												
25	430159093403201	07-29-97	0930	90	685	7.2	13.5	0.3	3	334	405	0
26	430525093023501	07-30-97	1320	2.0	631	6.9	17.0	.6	6	294	361	0
27	431222093313301	07-29-97	1250	23	497	7.2	11.0	7.6	72	168	206	0
28	431339093155901	07-30-97	0930	19	629	7.2	13.5	.3	3	460	556	0
29	432946093161901	08-18-97	1350	6.0	473	7.1	11.0	3.5	33	226	273	0
30	433815093000001	08-04-97	1240	15	555	6.8	21.5	4.7	55	305	379	0
31	435221093001901	08-05-97	0930	6.0	810	7.3	13.5	6.3	62	130	159	0
Urban land-use wells												
32	412855091421601	07-10-97	0840	19	976	6.4	12.5	.4	4	242	295	0
33	413414091095501	06-25-97	1110	2.0	613	6.3	18.0	7.3	79	166	203	0
34	413823091322301	06-09-97	1150	14	487	6.8	11.5	6.0	56	182	222	0
35	413933091304701	06-05-97	0935	85	1,480	6.4	13.5	1.1	11	216	264	0
36	414435090465101	06-23-97	0955	8.0	903	6.9	14.0	.4	4	381	465	0
37	415825091405601	07-17-97	1230	0	1,270	6.8	13.5	.6	6	272	332	0
38	415827091392401	06-30-97	0930	35	918	7.2	12.5	5.0	48	241	294	0
39	415850090572201	06-11-97	1330	9.0	371	6.2	10.5	.3	3	106	129	0
40	420219093361301	07-15-97	1200	35	1,310	6.6	14.0	.2	2	411	502	0
41	420240092535001	07-16-97	0900	16	1,360	6.6	14.0	.2	2	398	486	0
42	420347092541601	07-16-97	1210	1.0	587	7.1	12.5	.1	1	194	237	0
43	420936092005701	07-21-97	1220	--	646	7.2	16.0	2.4	25	281	343	0
44	421012092020101	07-21-97	0940	1.0	1,040	6.7	11.0	.2	2	431	526	0
45	422426092272401	06-19-97	0940	40	889	6.3	12.0	2.6	25	246	300	0
46	422754092375301	07-23-97	0900	90	419	7.1	15.5	5.0	52	166	203	0
47	422913092192501	06-18-97	0920	0	1,040	6.8	15.0	.4	4	347	423	0
48	422918092183901	06-18-97	1255	210	1,040	7.1	14.5	5.6	57	223	272	0
49	423018092200901	08-26-97	1310	58	933	6.9	15.0	3.6	37	331	406	0

**Table 17.** Miscellaneous onsite determinations in samples from land-use wells, 1997—Continued

Map index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu$ S/cm) (00095)	pH (standard units) (00400)	Water temperature ( $^{\circ}$ C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
Urban land-use wells—Continued												
50	423459092523701	07-28-97	1050	2.0	802	6.9	12.5	3.7	36	366	449	0
51	423459092530501	07-28-97	1340	33	730	7.1	26.0	2.4	31	283	348	0
52	423930093294901	07-08-97	1440	0	667	7.0	11.0	.4	4	262	320	0
53	424034091553401	08-27-97	1640	45	720	6.1	15.5	4.6	48	165	200	0
54	424322092283901	06-17-97	0935	9.0	762	7.2	12.0	.3	3	317	387	0
55	430414092405801	08-21-97	0830	60	628	7.0	15.0	5.7	59	275	339	0
56	430442092402201	08-19-97	0930	10	393	5.6	15.5	.3	4	110	134	0
57	431438092262201	08-20-97	0900	24	995	6.6	15.5	5.5	58	206	257	0
58	433855093222401	08-06-97	1130	26	980	6.5	13.5	.2	2	369	450	0
59	433944092583501	08-05-97	1140	55	542	6.6	14.5	1.3	13	197	240	0
60	434003092575401	08-06-97	0830	23	671	6.6	11.5	.2	2	284	349	0
61	434023093214201	08-07-97	0900	5.0	779	7.1	11.5	--	--	370	453	0

**Table 18.** Nutrient and dissolved organic carbon concentrations in samples from land-use wells, 1997

[mg/L, milligrams per liter; &lt;, less than detection limit indicated; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Nitrogen ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Phosphorus, total (mg/L) (00666)	Ortho-phosphorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)
Agricultural land-use wells											
1	405405091335001	07-02-97	1000	regular	<0.02	<0.01	<0.20	15	0.12	0.12	1.3
2	405601091551901	07-10-97	1210	do.	<.02	<.01	<.20	6.2	<.01	.01	.6
3	411511091155101	06-24-97	0900	do.	<.02	<.01	<.20	22	.04	.02	.4
4	411843092105101	07-14-97	1030	do.	<.02	<.01	<.20	1.1	.07	.08	.7
5	4127550911114101	06-25-97	0830	do.	.33	<.01	.33	.10	.08	.03	1.7
6	412927092575201	07-14-97	1430	do.	<.02	<.01	<.20	23	.16	.15	.9
7	413248092011301	07-07-97	1050	do.	<.02	<.01	<.20	27	.03	.04	.5
8	413540091341201	06-10-97	1215	do.	.02	<.01	<.20	.34	<.01	.02	1.0
9	414208092312601	07-09-97	1150	do.	<.02	<.01	<.20	5.1	<.01	.02	.6
10	414912093284201	07-15-97	0850	do.	.04	.01	<.20	<.05	.01	<.01	3.4
11	414958090230301	06-12-97	1005	do.	<.02	.34	<.20	4.4	<.01	.01	1.8
12	415527092190301	07-17-97	0850	do.	<.02	<.01	<.20	4.0	<.01	.02	10
13	420117092505601	07-09-97	0850	do.	<.02	.99	<.20	1.2	<.01	.01	.7
14	421115091250501	07-24-97	0910	do.	<.02	<.01	<.20	20.	.08	.09	.6
15	421705092142501	07-22-97	1250	do.	<.02	<.01	<.20	13	.03	.05	.9
16	422518092144701	07-22-97	0930	do.	<.02	.02	<.20	3.6	.06	.07	1.5
17	422629092345001	07-23-97	1140	blank	<.02	<.01	<.20	<.05	<.01	<.01	--
			1200	regular	<.02	<.01	<.20	31	.12	.12	.8
18	423419093172401	07-08-97	0950	do.	.07	<.01	.29	.05	<.01	<.01	1.8
19	423557091560501	08-27-97	0920	do.	.30	<.01	.42	<.05	.13	.14	1.7
20	423639092350901	06-17-97	1450	do.	<.02	<.01	<.20	12	.02	.03	3.1
21	424203092551301	07-31-97	1230	do.	<.02	<.01	<.20	6.1	.02	.03	1.0
22	424548092101701	08-26-97	0910	do.	.02	<.01	<.20	32.	<.01	.01	1.3

**Table 18.** Nutrient and dissolved organic carbon concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Nitrogen ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Phosphorus, total (mg/L) (00666)	Ortho-phosphorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)
Agricultural land-use wells—Continued											
23	425401093135201	07-31-97	0850	regular	<0.02	<0.01	<0.20	8.5	0.02	0.04	1.4
24	425756092162401	08-21-97	1210	do.	<.02	<.01	<.20	10	<.01	.01	.6
25	430159093403201	07-29-97	0930	do.	.97	<.01	1.3	.11	.04	.05	2.0
26	430525093023501	07-30-97	1320	do.	.02	<.01	<.20	4.0	.05	.02	1.0
27	431222093313301	07-29-97	1250	do.	<.02	<.01	<.20	18	.03	.05	.6
28	431339093155901	07-30-97	0930	do.	<.02	.08	<.20	17	.02	.02	1.1
29	432946093161901	08-18-97	1350	do.	.02	<.01	<.20	.41	.11	.13	1.8
30	433815093000001	08-04-97	1240	do.	.06	<.01	.26	.06	.01	.02	2.5
31	435221093001901	08-05-97	0930	do.	.02	<.01	<.20	3.4	.04	.05	1.2
Urban land-use wells											
32	412855091421601	06-26-97	0810	blank	.02	<.01	<.20	<.05	<.01	<.01	3.8
		07-10-97	0840	regular	.14	<.01	<.20	<.05	.03	.04	1.7
33	413414091095501	06-25-97	1110	do.	.02	<.01	<.20	7.5	.11	.12	1.6
34	413823091322301	06-09-97	1150	do.	<.02	<.01	<.20	1.3	.06	.03	.9
35	413933091304701	06-05-97	0935	do.	.13	<.01	<.20	.11	<.01	<.01	.9
36	414435090465101	06-23-97	0955	do.	.02	.01	<.20	3.2	<.01	<.01	1.3
			1000	replicate	<.02	.01	<.20	3.5	<.01	<.01	1.2
37	415825091405601	07-17-97	1230	regular	.21	<.01	.23	<.05	<.01	.01	2.4
38	415827091392401	06-30-97	0930	do.	<.02	<.01	<.20	9.0	.06	.07	1.5
39	415850090572201	06-11-97	1310	blank	<.02	<.01	<.20	<.05	<.01	<.01	.7
			1330	regular	<.02	.01	<.20	3.5	.07	.09	6.3
40	420219093361301	07-15-97	1200	do.	.15	.01	<.20	<.05	<.01	<.01	1.8
41	420240092535001	07-16-97	0900	do.	.08	<.01	<.20	<.05	<.01	.01	4.3
42	420347092541601	07-16-97	1210	do.	.18	<.01	<.20	1.6	<.01	.02	1.8
			1215	replicate	.18	<.01	<.20	.06	<.01	.02	1.9

**Table 18.** Nutrient and dissolved organic carbon concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Nitrogen ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Phosphorus, total (mg/L) (00666)	Ortho-phosphorus, total (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)
Urban land-use wells—Continued											
43	420936092005701	07-21-97	1220	regular	0.10	<0.01	<0.20	<0.05	<0.01	<0.01	1.1
44	421012092020101	07-21-97	0940	do.	.38	<.01	.45	.06	<.01	.02	3.3
45	422426092272401	06-19-97	0940	do.	.03	<.01	<.20	.93	.01	.01	9.7
46	422754092375301	07-23-97	0900	do.	<.02	<.01	<.20	2.1	.01	.02	1.3
47	422913092192501	06-18-97	0920	do.	<.02	.01	<.20	.21	<.01	.01	3.6
48	422918092183901	06-18-97	1255	do.	.16	.15	.28	6.9	<.01	.02	2.8
49	423018092200901	08-26-97	1310	do.	.02	<.01	<.20	2.5	.02	.02	.8
50	423459092523701	07-28-97	1050	do.	<.02	<.01	<.20	2.3	.03	.02	1.2
51	423459092530501	07-28-97	1340	do.	<.02	<.01	.25	9.1	.07	.02	1.3
52	423930093294901	07-08-97	1440	do.	<.02	<.01	<.20	4.3	.05	.05	1.1
53	424034091553401	08-27-97	1640	do.	.20	.07	.43	9.5	.02	.02	1.7
54	424322092283901	06-17-97	0935	do.	.22	<.01	<.20	.06	<.01	.02	4.2
55	430414092405801	08-21-97	0830	do.	<.02	<.01	<.20	2.7	.04	.05	.7
56	430442092402201	08-19-97	0930	do.	.02	.02	<.20	6.9	.02	.04	1.2
57	431438092262201	08-20-97	0900	do.	.02	<.01	<.20	8.3	.01	.03	1.6
58	433855093222401	08-06-97	1130	do.	1.01	<.01	1.6	<.05	.07	.09	6.7
59	433944092583501	08-05-97	1140	do.	.02	<.01	<.20	3.0	.05	.05	1.1
60	434003092575401	08-06-97	0830	do.	.31	<.01	.50	<.05	.02	.02	2.9
61	434023093214201	08-07-97	0900	do.	.03	.01	.28	1.3	<.01	.03	2.4
			0905	replicate	.03	.01	.31	1.3	.03	.02	2.0

**Table 19.** Major ion concentrations in samples from land-use wells, 1997

[mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Magnesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potassium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (µg/L as Fe) (01046)	Manganese (µg/L as Mn) (01056)
Agricultural land-use wells															
1	405405091335001	07-02-97	1000	regular	63	8.5	21	1.8	11	22	0.14	22	0.03	<3.0	1.7
2	405601091551901	07-10-97	1210	do.	21	7.5	9.8	1.2	13	53	<.10	18	.02	<3.0	122
3	411511091155101	06-24-97	0900	do.	26	6.7	3.0	1.4	1.9	9.3	<.10	19	.03	<3.0	<1.0
4	411843092105101	07-14-97	1030	do.	47	13	28	.82	10	38	<.10	26	.03	<3.0	31
5	412755091114101	06-25-97	0830	do.	76	15	7.2	.72	14	50	.14	16	.05	560	304
6	412927092575201	07-14-97	1430	do.	82	23	8.4	.51	24	34	.15	23	.05	<3.0	9.5
7	413248092011301	07-07-97	1050	do.	49	20	12	.28	23	22	.18	25	.05	<3.0	3.2
8	413540091341201	06-10-97	1215	do.	80	30	5.7	.37	8.2	68	.31	13	.08	<3.0	<1.0
9	414208092312601	07-09-97	1150	do.	68	20	5.0	.49	27	26	.16	13	.05	<3.0	<1.0
10	414912093284201	07-15-97	0850	do.	74	19	4.2	.57	14	35	.35	27	.09	3,500	1,360
11	414958090230301	06-12-97	1005	do.	58	23	5.6	.71	14	56	.21	6.3	.04	4.0	80
12	415527092190301	07-17-97	0850	do.	81	29	7.1	.44	6.7	70	.14	15	.06	4.6	33
13	420117092505601	07-09-97	0850	do.	100	37	4.5	.30	3.9	35	.19	15	.03	<3.0	409
14	421115091250501	07-24-97	0910	do.	72	9.4	2.9	.97	18	8.3	<.10	17	.04	<3.0	<1.0
15	421705092142501	07-22-97	1250	do.	60	16	4.3	.39	8.0	18	.18	7.3	.04	<3.0	1.2
16	422518092144701	07-22-97	0930	do.	51	12	1.5	1.1	5.5	5.5	<.10	13	.02	<3.0	1.8
17	422629092345001	07-23-97	1140	blank	.093	.012	<.20	<.10	<.10	<.10	<.10	.032	<.01	<3.0	<1.0
			1200	regular	69	14	5.6	5.4	18	23	<.10	20	.08	<3.0	<1.0
18	423419093172401	07-08-97	0950	do.	87	26	13	2.3	4.5	29	.23	17	.04	10	176
19	423557091560501	08-27-97	0920	do.	69	13	7.8	.47	.88	10	.32	28	--	160	311
20	423639092350901	06-17-97	1450	do.	37	7.4	1.3	.79	12	5.6	<.10	17	.02	4.4	<1.0
21	424203092551301	07-31-97	1230	do.	50	15	2.7	.30	2.1	7.4	<.10	19	.01	<3.0	<1.0
22	424548092101701	08-26-97	0910	do.	55	11	2.2	.21	12	18	<.10	6.4	.09	7.6	2.9



**Table 19.** Major ion concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Mag-nesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas-sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (µg/L as Fe) (01046)	Man-ganese (µg/L as Mn) (01056)
Agricultural land-use wells—Continued															
23	425401093135201	07-31-97	0850	regular	67	20	5.2	2.5	12	18	0.17	18	0.02	<3.0	<1.0
24	425756092162401	08-21-97	1210	do.	28	6.7	7.0	.40	14	39	<.10	21	E.04	5.3	139
25	430159093403201	07-29-97	0930	do.	86	33	9.6	3.0	11	23	.32	27	.03	270	1,600
26	430525093023501	07-30-97	1320	do.	86	26	2.3	1.2	6.8	17	.32	16	<.01	<3.0	77
27	431222093313301	07-29-97	1250	do.	62	22	2.0	1.1	8.1	5.9	.12	23	.05	<3.0	1.5
28	431339093155901	07-30-97	0930	do.	79	27	2.6	.84	12	14	.17	20	.04	<3.0	13
29	432946093161901	08-18-97	1350	do.	57	24	1.8	.25	2.4	6.0	.31	30	<.01	<3.0	<1.0
30	433815093000001	08-04-97	1240	do.	110	30	18	2.6	97	10	.16	26	<.01	6.3	1,430
31	435221093001901	08-05-97	0930	do.	74	18	42	.64	140	9.0	.25	22	.04	<3.0	8.8
Urban land-use wells															
32	412855091421601	06-26-97	0810	blank	.094	.014	<.20	<.10	<.10	.11	.11	.058	<.01	<3.0	1.2
		07-10-97	0840	do.	89	45	33	1.3	3.1	7.1	.31	16	.12	1,700	152
33	413414091095501	06-25-97	1110	do.	61	21	27	3.5	41	56	.20	18	.09	3.1	<1.0
34	413823091322301	06-09-97	1150	do.	61	18	6.4	.86	11	40	.20	11	.04	<3.0	<1.0
35	413933091304701	06-05-97	0935	do.	160	67	19	.67	310	84	<.10	19	.25	4300	227
36	414435090465101	06-23-97	0955	do.	100	45	17	1.1	42	80	.19	19	.12	13	413
			1000	replicate	100	46	18	1.1	42	80	.19	19	.12	13	456
37	415825091405601	07-17-97	1230	regular	140	39	51	2.7	190	120	.31	20	.18	41	364
38	415827091392401	06-30-97	0930	do.	110	21	34	21	53	120	<.10	19	.09	<3.0	<1.0
39	415850090572201	06-11-97	1310	blank	.15	<.010	<.20	<.10	<.10	<.10	<.10	.035	.02	<3.0	<1.0
			1330	regular	40	13	10	1.8	18	23	<.10	9.6	.07	<3.0	2.2
40	420219093361301	07-15-97	1200	do.	140	31	68	4.7	100	130	.40	22	.20	4,100	963
41	420240092535001	07-16-97	0900	do.	190	44	32	4.0	64	260	.13	20	.41	3,800	781
42	420347092541601	07-16-97	1210	do.	63	19	20	2.0	39	45	.57	13	.05	67	424
			1215	replicate	64	20	21	2.1	39	45	.55	14	.05	57	439

**Table 19.** Major ion concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Magnesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potassium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (µg/L as Fe) (01046)	Manganese (µg/L as Mn) (01056)
Urban land-use wells—Continued															
43	420936092005701	07-21-97	1220	regular	73	22	25	0.54	19	39	0.35	16	0.08	34	889
44	421012092020101	07-21-97	0940	do.	120	37	34	8.3	72	6.3	.20	18	.37	5,800	882
45	422426092272401	06-19-97	0940	do.	120	21	43	1.3	61	140	.23	16	.13	14	245
46	422754092375301	07-23-97	0900	do.	57	8.2	14	.49	15	19	.14	15	.04	<3.0	14
47	422913092192501	06-18-97	0920	do.	130	25	51	7.8	73	87	.15	14	.11	7.0	1,430
48	422918092183901	06-18-97	1255	do.	130	29	35	5.2	89	140	.11	9.9	.07	3.7	2,210
49	423018092200901	08-26-97	1310	do.	110	26	34	4.8	82	77	.12	17	.08	<3.0	<1.0
50	423459092523701	07-28-97	1050	do.	100	32	14	2.7	18	35	.13	24	.07	<3.0	<1.0
51	423459092530501	07-28-97	1340	do.	91	29	11	8.5	26	28	.25	19	.06	18	3.5
52	423930093294901	07-08-97	1440	do.	85	27	7.7	1.7	10	55	.19	25	.06	<3.0	<1.0
53	424034091553401	08-27-97	1640	do.	90	18	21	2.7	63	47	<.10	14	.06	31	195
54	424322092283901	06-17-97	0935	do.	91	21	36	4.7	58	1.9	.41	25	.06	2,000	1,680
55	430414092405801	08-21-97	0830	do.	92	15	15	2.1	20	17	.13	17	.03	40	3.5
56	430442092402201	08-19-97	0930	do.	51	10	6.6	3.6	15	35	.10	12	.04	<3.0	9.6
57	431438092262201	08-20-97	0900	do.	110	37	35	7.2	90	110	.14	7.2	.08	9.0	<1.0
58	433855093222401	08-06-97	1130	do.	130	32	29	6.8	67	45	.19	39	.10	3,800	1,050
59	433944092583501	08-05-97	1140	do.	66	21	15	2.3	22	29	.19	20	.04	32	20
60	434003092575401	08-06-97	0830	do.	83	27	14	3.5	18	29	.22	19	.02	770	551
61	434023093214201	08-07-97	0900	do.	100	44	6.3	1.4	8.5	29	.21	26	.04	53	153
			0905	replicate	100	44	6.4	1.3	8.5	29	.21	26	.04	3.9	143

**Table 20.** Concentrations of radiochemicals and stable isotopes in samples from land-use wells, 1997

[pCi/L, picocuries per liter; &lt;, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Tritium, total (pCi/L) (07000)	Tritium, precision estimate (pCi/L) (75985)	Radon-222, total (pCi/L) (82303)	Radon-222, precision estimate (pCi/L) (76002)	Oxygen 18/16 ratio (82085)	Hydrogen 2/1 ratio (82082)
Agricultural land-use wells										
1	405405091335001	07-02-97	1000	regular	25	1.9	861	32	-7.63	-48.6
2	405601091551901	07-10-97	1210	do.	29	1.9	487	25	-7.62	-47.1
3	411511091155101	06-24-97	0900	do.	28	1.9	266	21	-6.72	-41.8
4	411843092105101	07-14-97	1030	do.	36	2.6	883	30	-7.70	-49.0
5	412755091114101	06-25-97	0830	do.	58	3.8	247	21	-7.37	-47.0
6	412927092575201	07-14-97	1430	do.	33	2.6	289	21	-7.20	-45.7
7	413248092011301	07-07-97	1050	do.	39	2.6	219	18	-7.14	-43.0
8	413540091341201	06-10-97	1215	do.	34	2.6	1,500	36	-8.15	-51.4
9	414208092312601	07-09-97	1150	do.	24	1.6	488	24	-7.96	-51.4
10	414912093284201	07-15-97	0850	do.	29	1.9	187	19	-7.54	-51.0
11	414958090230301	06-12-97	1005	do.	30	1.9	237	20	-7.74	-50.7
12	415527092190301	07-17-97	0850	do.	44	2.6	442	25	-8.20	-52.2
13	420117092505601	07-09-97	0850	do.	33	2.6	1,009	32	-8.15	-53.6
14	421115091250501	07-24-97	0910	do.	31	1.9	415	23	-8.69	-56.3
15	421705092142501	07-22-97	1250	do.	35	2.6	305	21	-8.46	-55.9
16	422518092144701	07-22-97	0930	do.	30	2.6	232	20	-13.52	-97.0
17	422629092345001	07-23-97	1200	do.	29	1.9	197	19	-8.91	-58.7
18	423419093172401	07-08-97	0950	do.	38	2.6	396	25	-10.55	-71.5
19	423557091560501	08-27-97	0920	do.	<1.0	1.0	344	21	-7.53	-47.1
20	423639092350901	06-17-97	1450	do.	36	2.6	221	20	-7.28	-47.9
21	424203092551301	07-31-97	1230	do.	30	1.9	350	22	-15.70	-111.8
22	424548092101701	08-26-97	0910	do.	39	2.6	366	22	-7.71	-49.2
23	425401093135201	07-31-97	0850	do.	31	1.9	400	23	-9.61	-64.0
24	425756092162401	08-21-97	1210	do.	36	2.6	415	24	-8.96	-57.6

**Table 20.** Concentrations of radiochemicals and stable isotopes in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Tritium, total (pCi/L) (07000)	Tritium, precision estimate (pCi/L) (75985)	Radon-222, total (pCi/L) (82303)	Radon-222, precision estimate (pCi/L) (76002)	Oxygen 18/16 ratio (82085)	Hydrogen 2/1 ratio (82082)
<b>Agricultural land-use wells—Continued</b>										
25	430159093403201	07-29-97	0930	regular	44	2.6	361	21	-10.13	-68.5
26	430525093023501	07-30-97	1320	do.	33	1.9	528	25	-10.00	-68.5
27	431222093313301	07-29-97	1250	do.	32	2.6	453	22	-8.47	-55.8
28	431339093155901	07-30-97	0930	do.	39	2.6	440	24	-7.81	-50.8
29	432946093161901	08-18-97	1350	do.	33	1.9	590	36	-10.58	-74.0
30	433815093000001	08-04-97	1240	do.	44	2.6	767	28	-10.36	-71.7
31	435221093001901	08-05-97	0930	do.	34	2.6	345	21	-11.24	-77.8
<b>Urban land-use wells</b>										
32	412855091421601	07-10-97	0840	regular	44	2.6	196	20	-7.54	-48.5
33	413414091095501	06-25-97	1110	do.	29	1.9	235	21	-7.52	-47.2
34	413823091322301	06-09-97	1150	do.	45	3.2	358	22	-7.24	-45.7
35	413933091304701	06-05-97	0935	do.	120	7.7	657	27	-7.76	-51.3
36	414435090465101	06-23-97	0955	do.	46	3.2	367	23	-7.43	-45.8
37	415825091405601	07-17-97	1230	do.	31	1.9	325	23	-7.98	-52.6
38	415827091392401	06-30-97	0930	do.	34	2.6	258	21	-7.81	-50.9
39	415850090572201	06-11-97	1330	do.	30	1.9	281	23	-8.39	-55.2
40	420219093361301	07-15-97	1200	do.	30	1.9	260	20	-7.07	-47.4
41	420240092535001	07-16-97	0900	do.	37	2.6	443	23	-7.68	-49.0
42	420347092541601	07-16-97	1210	do.	34	2.6	373	22	-8.25	-53.6
43	420936092005701	07-21-97	1220	do.	21	1.9	454	24	-8.16	-53.2
44	421012092020101	07-21-97	0940	do.	41	2.6	172	20	-8.39	-55.0
45	422426092272401	06-19-97	0940	do.	34	2.6	1,003	33	-8.54	-56.7
46	422754092375301	07-23-97	0900	do.	31	1.9	728	28	-8.72	-56.9
47	422913092192501	06-18-97	0920	do.	40	2.6	364	24	-8.16	-53.8
48	422918092183901	06-18-97	1255	do.	41	2.6	262	22	-8.59	-58.2

**Table 20.** Concentrations of radiochemicals and stable isotopes in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Tritium, total (pCi/L) (07000)	Tritium, precision estimate (pCi/L) (75985)	Radon-222, total (pCi/L) (82303)	Radon-222, precision estimate (pCi/L) (76002)	Oxygen 18/16 ratio (82085)	Hydrogen 2/1 ratio (82082)
Urban land-use wells—Continued										
49	423018092200901	08-26-97	1310	regular	39	2.6	538	24	-8.12	-54.7
50	423459092523701	07-28-97	1050	do.	36	2.6	435	24	-8.17	-53.1
51	423459092530501	07-28-97	1340	do.	32	1.9	382	22	-8.70	-55.6
52	423930093294901	07-08-97	1440	do.	34	2.6	564	27	-8.71	-57.6
53	424034091553401	08-27-97	1640	do.	31	1.9	1,035	33	-8.94	-62.9
54	424322092283901	06-17-97	0935	do.	39	2.6	283	21	-8.55	-55.4
55	430414092405801	08-21-97	0830	do.	31	2.6	739	29	-9.41	-66.5
56	430442092402201	08-19-97	0930	do.	31	1.9	237	26	-8.85	-58.3
57	431438092262201	08-20-97	0900	do.	35	2.6	495	27	-8.65	-56.3
58	433855093222401	08-06-97	1130	do.	29	1.9	360	23	-8.49	-56.2
59	433944092583501	08-05-97	1140	do.	27	1.9	1,221	33	-8.85	-57.2
60	434003092575401	08-06-97	0830	do.	26	1.9	972	32	-8.90	-59.0
61	434023093214201	08-07-97	0900	do.	40	2.6	811	32	-8.53	-55.7

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997

[All concentrations are in micrograms per liter; <, less than detection limit indicated; E, estimated; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water-Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.003	0.031	E0.003	0.198	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
2	405601091551901	07-10-97	1210	do.	<.003	<.002	<.002	.007	<.001	<.002	<.002	<.003	<.003	<.004
3	411511091155101	06-24-97	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
4	411843092105101	07-14-97	1030	do.	<.003	<.002	<.002	.019	<.001	<.002	<.002	<.003	<.003	<.004
5	412755091114101	06-25-97	0830	do.	.044	<.002	<.002	.007	<.001	<.002	<.002	<.003	<.003	<.004
6	412927092575201	07-14-97	1430	do.	<.003	<.002	<.002	.013	<.001	<.002	<.002	<.003	<.003	<.004
7	413248092011301	07-07-97	1050	do.	<.003	<.002	<.002	.017	<.001	<.002	<.002	<.003	<.003	<.004
8	413540091341201	06-10-97	1215	do.	<.003	<.002	<.002	.112	<.001	<.002	<.002	<.003	<.003	<.004
9	414208092312601	07-09-97	1150	do.	<.003	<.002	<.002	.046	<.001	<.002	<.002	<.003	<.003	<.004
10	414912093284201	07-15-97	0850	do.	<.003	<.002	<.002	.004	<.001	<.002	<.002	<.003	<.003	<.004
11	414958090230301	06-12-97	1005	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
12	415527092190301	07-17-97	0850	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
13	420117092505601	07-09-97	0850	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
14	421115091250501	07-24-97	0910	do.	<.003	<.002	<.002	.033	<.001	<.002	<.002	<.003	<.003	.007
15	421705092142501	07-22-97	1250	do.	<.003	<.002	<.002	.203	<.001	<.002	<.002	<.003	<.003	E.004
16	422518092144701	07-22-97	0930	do.	<.003	<.002	<.002	.006	<.001	<.002	<.002	<.003	<.003	.021
17	422629092345001	07-23-97	1140	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			1200	regular	<.003	<.002	<.002	.824	<.001	<.002	<.002	<.003	<.003	<.004
18	423419093172401	07-08-97	0950	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	.007
19	423557091560501	08-27-97	0920	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
20	423639092350901	06-17-97	1450	do.	<.003	<.002	<.002	.134	<.001	<.002	<.002	<.003	<.003	<.004
21	424203092551301	07-31-97	1230	do.	<.003	<.002	<.002	.105	<.001	<.002	<.002	<.003	<.003	<.004
22	424548092101701	08-26-97	0910	do.	<.003	<.002	<.002	.145	<.001	<.002	<.002	<.003	<.003	.006
23	425401093135201	07-31-97	0850	do.	<.003	<.002	<.002	.058	<.001	<.002	<.002	<.003	<.003	<.004

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
Agricultural land-use wells—Continued														
24	425756092162401	08-21-97	1210	regular	<0.003	<0.002	<0.002	0.142	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
25	430159093403201	07-29-97	0930	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
26	430525093023501	07-30-97	1320	do.	<.003	<.002	<.002	.279	<.001	<.002	<.002	<.003	<.003	<.004
27	431222093313301	07-29-97	1250	do.	<.003	<.002	<.002	.149	<.001	<.002	<.002	<.003	<.003	<.004
28	431339093155901	07-30-97	0930	do.	<.003	<.002	<.002	.164	<.001	<.002	<.002	<.003	<.003	<.004
29	432946093161901	08-18-97	1350	do.	<.003	<.002	<.002	.272	<.001	<.002	<.002	<.003	<.003	<.004
30	433815093000001	08-04-97	1240	do.	<.003	.008	<.002	.042	<.001	<.002	<.002	<.003	<.003	<.004
31	435221093001901	08-05-97	0930	do.	<.003	<.002	<.002	.020	<.001	<.002	<.002	<.003	<.003	<.004
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
		07-10-97	0840	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
33	413414091095501	06-25-97	1110	do.	<.003	<.002	<.002	.026	<.001	<.002	<.002	<.003	<.003	<.004
34	413823091322301	06-09-97	1150	do.	<.003	<.002	<.002	.019	<.001	<.002	<.002	<.003	<.003	<.004
35	413933091304701	06-05-97	0935	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
36	414435090465101	06-23-97	0955	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			1000	replicate	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
37	415825091405601	07-17-97	1230	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
38	415827091392401	06-30-97	0930	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
39	415850090572201	06-11-97	1310	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			1330	regular	<.003	<.002	<.002	.792	<.001	<.002	<.002	<.003	<.003	<.004
40	420219093361301	07-15-97	1200	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
41	420240092535001	07-16-97	0900	do.	<.003	<.002	<.002	E.003	<.001	<.002	<.002	<.003	<.003	.005
42	420347092541601	07-16-97	1210	do.	<.003	<.002	<.002	.031	<.001	<.002	E.002	<.003	<.003	E.003
			1215	replicate	<.003	<.002	<.002	.030	<.001	<.002	E.002	<.003	<.003	<.004
43	420936092005701	07-21-97	1220	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
44	421012092020101	07-21-97	0940	do.	.031	<.002	.082	.160	<.001	<.002	<.002	E.007	E.024	<.004
45	422426092272401	06-19-97	0940	do.	<.003	<.002	<.002	<.010	<.001	<.002	<.002	<.003	<.003	<.004
46	422754092375301	07-23-97	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
Urban land-use wells—Continued														
47	422913092192501	06-18-97	0920	regular	<0.003	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
48	422918092183901	06-18-97	1255	do.	<.003	<.002	<.002	<.010	<.001	<.002	<.002	<.003	<.003	<.004
49	423018092200901	08-26-97	1310	do.	<.003	<.002	<.002	.004	<.001	<.002	<.002	<.003	<.003	<.004
50	423459092523701	07-28-97	1050	do.	<.003	<.002	<.002	E.003	<.001	<.002	<.002	<.003	<.003	<.004
51	423459092530501	07-28-97	1340	do.	<.003	<.002	<.002	.007	<.001	<.002	<.002	<.003	<.003	<.004
52	423930093294901	07-08-97	1440	do.	<.003	<.002	<.002	.032	<.001	<.002	<.002	<.003	<.003	<.004
53	424034091553401	08-27-97	1640	do.	<.003	<.002	<.002	.006	<.001	<.002	<.002	<.003	<.003	<.004
54	424322092283901	06-17-97	0935	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
55	430414092405801	08-21-97	0830	do.	<.003	<.002	<.002	.005	<.001	<.002	<.002	<.003	<.003	<.004
56	430442092402201	08-19-97	0930	do.	<.003	<.002	<.002	.195	<.001	<.002	<.002	<.003	<.003	.004
			0940	spike	.112	.124	.124	.322	E.114	.098	.115	E.263	E.194	.118
57	431438092262201	08-20-97	0900	regular	<.003	<.002	<.002	.341	<.001	<.002	<.002	<.003	<.003	<.004
58	433855093222401	08-06-97	1130	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
59	433944092583501	08-05-97	1140	do.	<.003	<.002	<.002	.006	<.001	<.002	<.002	<.003	<.003	<.004
60	434003092575401	08-06-97	0830	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
61	434023093214201	08-07-97	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			0905	replicate	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004



**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.004	<0.002	E.031	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
2	405601091551901	07-10-97	1210	do.	<.004	<.002	E.016	<.002	<.001	<.017	<.002	<.004	<.003	<.003
3	411511091155101	06-24-97	0900	do.	<.004	<.002	E.014	<.002	<.001	<.017	<.002	<.004	<.003	<.003
4	411843092105101	07-14-97	1030	do.	<.004	<.002	E.005	<.002	<.001	<.017	<.002	<.004	<.003	<.003
5	412755091114101	06-25-97	0830	do.	<.004	<.002	E.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
6	412927092575201	07-14-97	1430	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
7	413248092011301	07-07-97	1050	do.	<.004	<.002	E.011	<.002	<.001	<.017	<.002	<.004	<.003	<.003
8	413540091341201	06-10-97	1215	do.	<.004	<.002	E.005	<.002	<.001	<.017	<.002	<.004	<.003	<.003
9	414208092312601	07-09-97	1150	do.	<.004	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003
10	414912093284201	07-15-97	0850	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
11	414958090230301	06-12-97	1005	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
12	415527092190301	07-17-97	0850	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
13	420117092505601	07-09-97	0850	do.	<.004	<.002	E.007	<.002	<.001	<.017	<.002	<.004	<.003	<.003
14	421115091250501	07-24-97	0910	do.	<.004	<.002	E.013	<.002	<.001	<.017	<.002	<.004	<.003	<.003
15	421705092142501	07-22-97	1250	do.	<.004	<.002	E.051	<.002	<.001	<.017	<.002	<.004	<.003	<.003
16	422518092144701	07-22-97	0930	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
17	422629092345001	07-23-97	1140	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1200	regular	<.004	<.002	E.185	<.002	<.001	<.017	<.002	<.004	<.003	<.003
18	423419093172401	07-08-97	0950	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
19	423557091560501	08-27-97	0920	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
20	423639092350901	06-17-97	1450	do.	<.004	<.002	E.456	<.002	<.001	<.017	<.002	<.004	<.003	<.003
21	424203092551301	07-31-97	1230	do.	<.004	<.002	E.033	<.002	<.001	<.017	<.002	<.004	<.003	<.003
22	424548092101701	08-26-97	0910	do.	<.004	<.002	E.061	<.002	<.001	<.017	<.002	<.004	<.003	<.003
23	425401093135201	07-31-97	0850	do.	<.004	<.002	E.019	<.002	<.001	<.017	<.002	<.004	<.003	<.003
24	425756092162401	08-21-97	1210	do.	<.004	<.002	E.085	<.002	<.001	<.017	<.002	<.004	<.003	<.003
25	430159093403201	07-29-97	0930	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
Agricultural land-use wells—Continued														
26	430525093023501	07-30-97	1320	regular	<.004	<.002	E0.057	<.002	<.001	<.017	<.002	<.004	<.003	<.003
27	431222093313301	07-29-97	1250	do.	<.004	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003
28	431339093155901	07-30-97	0930	do.	<.004	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003
29	432946093161901	08-18-97	1350	do.	<.004	<.002	E.034	<.002	<.001	<.017	<.002	<.004	<.003	<.003
30	433815093000001	08-04-97	1240	do.	<.004	<.002	E.010	<.002	<.001	<.017	<.002	<.004	<.003	<.003
31	435221093001901	08-05-97	0930	do.	<.004	<.002	E.033	<.002	<.001	<.017	<.002	<.004	<.003	<.003
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
		07-10-97	0840	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
33	413414091095501	06-25-97	1110	do.	<.004	<.002	E.008	<.002	<.001	<.017	<.002	<.004	<.003	<.003
34	413823091322301	06-09-97	1150	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
35	413933091304701	06-05-97	0935	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
36	414435090465101	06-23-97	0955	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1000	replicate	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
37	415825091405601	07-17-97	1230	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
38	415827091392401	06-30-97	0930	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
39	415850090572201	06-11-97	1310	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1330	regular	<.004	<.002	E.040	<.002	<.001	<.017	<.002	<.004	<.003	<.003
40	420219093361301	07-15-97	1200	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
41	420240092535001	07-16-97	0900	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
42	420347092541601	07-16-97	1210	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1215	replicate	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
43	420936092005701	07-21-97	1220	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
44	421012092020101	07-21-97	0940	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
45	422426092272401	06-19-97	0940	do.	.0067	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
46	422754092375301	07-23-97	0900	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
47	422913092192501	06-18-97	0920	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
Urban land-use wells—Continued														
48	422918092183901	06-18-97	1255	regular	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
49	423018092200901	08-26-97	1310	do.	<.004	<.002	E.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
50	423459092523701	07-28-97	1050	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
51	423459092530501	07-28-97	1340	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
52	423930093294901	07-08-97	1440	do.	<.004	<.002	E.010	<.002	<.001	<.017	<.002	<.004	<.003	<.003
53	424034091553401	08-27-97	1640	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
54	424322092283901	06-17-97	0935	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
55	430414092405801	08-21-97	0830	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
56	430442092402201	08-19-97	0930	do.	<.004	<.002	E.043	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			0940	spike	.137	.128	E.088	.113	.093	.109	.112	.100	.119	.107
57	431438092262201	08-20-97	0900	regular	<.004	<.002	E.036	<.002	<.001	<.017	<.002	<.004	<.003	<.003
58	433855093222401	08-06-97	1130	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
59	433944092583501	08-05-97	1140	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
60	434003092575401	08-06-97	0830	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
61	434023093214201	08-07-97	0900	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			0905	replicate	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala- thion (39532)	Metol- achlor (39415)	Metri- buzin (82630)	Molinate (82671)	Naprop- amide (82684)	Parathion (39542)	Para- thion- methyl (82667)	Pebulate (82669)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.004	<0.002	<0.005	0.021	<0.010	<0.004	<0.003	<0.004	<0.006	<0.004
2	405601091551901	07-10-97	1210	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
3	411511091155101	06-24-97	0900	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
4	411843092105101	07-14-97	1030	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
5	412755091114101	06-25-97	0830	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
6	412927092575201	07-14-97	1430	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
7	413248092011301	07-07-97	1050	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
8	413540091341201	06-10-97	1215	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
9	414208092312601	07-09-97	1150	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
10	414912093284201	07-15-97	0850	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
11	414958090230301	06-12-97	1005	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
12	415527092190301	07-17-97	0850	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
13	420117092505601	07-09-97	0850	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
14	421115091250501	07-24-97	0910	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
15	421705092142501	07-22-97	1250	do.	<.004	<.002	<.005	.009	<.004	<.004	<.003	<.004	<.006	<.004
16	422518092144701	07-22-97	0930	do.	<.004	<.002	<.005	.132	<.004	<.004	<.003	<.004	<.006	<.004
17	422629092345001	07-23-97	1140	blank	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
			1200	regular	<.004	<.002	<.005	.034	<.004	<.004	<.003	<.004	<.006	<.004
18	423419093172401	07-08-97	0950	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
19	423557091560501	08-27-97	0920	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
20	423639092350901	06-17-97	1450	do.	<.004	<.002	<.005	<.002	<.050	<.004	<.003	<.004	<.006	<.004
21	424203092551301	07-31-97	1230	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
22	424548092101701	08-26-97	0910	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
23	425401093135201	07-31-97	0850	do.	<.004	<.002	<.005	.006	<.004	<.004	<.003	<.004	<.006	<.004
24	425756092162401	08-21-97	1210	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
25	430159093403201	07-29-97	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala- thion (39532)	Metol- achlor (39415)	Metri- buzin (82630)	Molinate (82671)	Naprop- amide (82684)	Parathion (39542)	Para- thion- methyl (82667)	Pebulate (82669)
Agricultural land-use wells—Continued														
26	430525093023501	07-30-97	1320	regular	<0.004	<0.002	<0.005	0.007	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
27	431222093313301	07-29-97	1250	do.	<.004	<.002	<.005	.075	<.004	<.004	<.003	<.004	<.006	<.004
28	431339093155901	07-30-97	0930	do.	<.004	<.002	<.005	E32.8	<.004	<.004	<.003	<.004	<.006	<.004
29	432946093161901	08-18-97	1350	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
30	433815093000001	08-04-97	1240	do.	<.004	<.002	<.005	.164	<.004	<.004	<.003	<.004	<.006	<.004
31	435221093001901	08-05-97	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
		07-10-97	0840	regular	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
33	413414091095501	06-25-97	1110	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
34	413823091322301	06-09-97	1150	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
35	413933091304701	06-05-97	0935	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
36	414435090465101	06-23-97	0955	do.	<.004	<.002	<.005	<.002	<.030	<.004	<.003	<.004	<.006	<.004
			1000	replicate	<.004	<.002	<.005	<.002	<.030	<.004	<.003	<.004	<.006	<.004
37	415825091405601	07-17-97	1230	regular	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
38	415827091392401	06-30-97	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
39	415850090572201	06-11-97	1310	blank	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
			1330	regular	<.004	<.002	.010	.045	<.004	<.004	<.003	<.004	<.006	<.004
40	420219093361301	07-15-97	1200	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
41	420240092535001	07-16-97	0900	do.	<.004	<.002	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004
42	420347092541601	07-16-97	1210	do.	<.004	<.002	<.005	.014	<.004	<.004	<.003	<.004	<.006	<.004
			1215	replicate	<.004	<.002	<.005	.014	<.004	<.004	<.003	<.004	<.006	<.004
43	420936092005701	07-21-97	1220	regular	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
44	421012092020101	07-21-97	0940	do.	<.004	<.002	<.005	.556	<.004	<.004	<.003	<.004	<.006	<.004
45	422426092272401	06-19-97	0940	do.	<.004	<.002	<.005	<.002	<.020	<.004	<.003	<.004	<.006	<.004
46	422754092375301	07-23-97	0900	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
47	422913092192501	06-18-97	0920	do.	<.004	<.002	<.005	<.002	<.060	<.004	<.003	<.004	<.006	<.004
48	422918092183901	06-18-97	1255	do.	<.004	<.002	<.005	<.002	<.060	<.004	<.003	<.004	<.006	<.004

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala- thion (39532)	Metol- achlor (39415)	Metri- buzin (82630)	Molinate (82671)	Naprop- amide (82684)	Parathion (39542)	Para- thion- methyl (82667)	Pebulate (82669)
Urban land-use wells—Continued														
49	423018092200901	08-26-97	1310	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
50	423459092523701	07-28-97	1050	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
51	423459092530501	07-28-97	1340	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
52	423930093294901	07-08-97	1440	do.	<.004	<.002	<.005	.019	<.004	<.004	<.003	<.004	<.006	<.004
53	424034091553401	08-27-97	1640	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
54	424322092283901	06-17-97	0935	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
55	430414092405801	08-21-97	0830	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
56	430442092402201	08-19-97	0930	do.	<.004	<.002	<.005	.005	<.004	<.004	<.003	<.004	<.006	<.004
			0940	spike	.102	.130	.118	.130	.111	.121	.106	.115	.116	.116
57	431438092262201	08-20-97	0900	regular	<.004	<.002	<.005	E.002	<.004	<.004	<.003	<.004	<.006	<.004
58	433855093222401	08-06-97	1130	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
59	433944092583501	08-05-97	1140	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
60	434003092575401	08-06-97	0830	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
61	434023093214201	08-07-97	0900	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
			0905	replicate	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.004	<0.002	<0.018	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007
2	405601091551901	07-10-97	1210	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
3	411511091155101	06-24-97	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
4	411843092105101	07-14-97	1030	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
5	412755091114101	06-25-97	0830	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
6	412927092575201	07-14-97	1430	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
7	413248092011301	07-07-97	1050	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
8	413540091341201	06-10-97	1215	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	.011	<.010	<.007
9	414208092312601	07-09-97	1150	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
10	414912093284201	07-15-97	0850	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
11	414958090230301	06-12-97	1005	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
12	415527092190301	07-17-97	0850	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
13	420117092505601	07-09-97	0850	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
14	421115091250501	07-24-97	0910	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
15	421705092142501	07-22-97	1250	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
16	422518092144701	07-22-97	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.015	<.010	<.007
17	422629092345001	07-23-97	1140	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1200	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
18	423419093172401	07-08-97	0950	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
19	423557091560501	08-27-97	0920	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
20	423639092350901	06-17-97	1450	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
21	424203092551301	07-31-97	1230	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
22	424548092101701	08-26-97	0910	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
23	425401093135201	07-31-97	0850	do.	<.004	<.002	E.008	<.007	<.004	<.013	<.003	<.005	<.010	<.007
24	425756092162401	08-21-97	1210	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
25	430159093403201	07-29-97	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
Agricultural land-use wells—Continued														
26	430525093023501	07-30-97	1320	regular	<0.004	<0.002	<0.018	<0.007	<0.004	<0.013	<0.003	E0.004	<0.010	<0.007
27	431222093313301	07-29-97	1250	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
28	431339093155901	07-30-97	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
29	432946093161901	08-18-97	1350	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	E.004	<.010	<.007
30	433815093000001	08-04-97	1240	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
31	435221093001901	08-05-97	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
		07-10-97	0840	regular	<.004	<.002	.050	<.007	<.004	<.013	<.003	<.005	<.010	<.007
33	413414091095501	06-25-97	1110	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
34	413823091322301	06-09-97	1150	do.	<.004	<.002	.022	<.007	<.004	<.013	<.003	<.005	<.010	<.007
35	413933091304701	06-05-97	0935	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
36	414435090465101	06-23-97	0955	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1000	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
37	415825091405601	07-17-97	1230	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
38	415827091392401	06-30-97	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
39	415850090572201	06-11-97	1310	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1330	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	.011	<.010	<.007
40	420219093361301	07-15-97	1200	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
41	420240092535001	07-16-97	0900	do.	<.004	<.002	.032	<.007	<.004	<.013	<.003	<.005	E.039	<.007
42	420347092541601	07-16-97	1210	do.	<.004	<.002	.070	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1215	replicate	<.004	<.002	.070	<.007	<.004	<.013	<.003	<.005	<.010	<.007
43	420936092005701	07-21-97	1220	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
44	421012092020101	07-21-97	0940	do.	<.004	<.002	.030	<.007	<.004	<.013	<.003	<.005	<.010	<.007
45	422426092272401	06-19-97	0940	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
46	422754092375301	07-23-97	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
47	422913092192501	06-18-97	0920	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
48	422918092183901	06-18-97	1255	do.	<.004	<.002	.254	<.007	<.004	<.013	<.003	<.005	.100	<.007



**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
Urban land-use wells—Continued														
49	423018092200901	08-26-97	1310	regular	<0.004	<0.002	0.147	<0.007	<0.004	<0.013	<0.003	<0.005	0.046	<0.007
50	423459092523701	07-28-97	1050	do.	<.004	<.002	.356	<.007	<.004	<.013	<.003	<.005	<.010	<.007
51	423459092530501	07-28-97	1340	do.	<.004	<.002	.156	<.007	<.004	<.013	<.003	<.005	<.010	<.007
52	423930093294901	07-08-97	1440	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
53	424034091553401	08-27-97	1640	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
54	424322092283901	06-17-97	0935	do.	<.004	<.002	.032	<.007	<.004	<.013	<.003	<.005	<.010	<.007
55	430414092405801	08-21-97	0830	do.	<.004	<.002	E.014	<.007	<.004	<.013	<.003	<.005	<.010	<.007
56	430442092402201	08-19-97	0930	do.	<.004	<.002	.0643	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			0940	spike	.109	.098	.192	.125	.131	.099	.119	.127	.136	E.062
57	431438092262201	08-20-97	0900	regular	<.004	<.002	.219	<.007	<.004	<.013	<.003	E.003	<.010	<.007
58	433855093222401	08-06-97	1130	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
59	433944092583501	08-05-97	1140	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
60	434003092575401	08-06-97	0830	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
61	434023093214201	08-07-97	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			0905	replicate	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
Agricultural land-use wells											
1	405405091335001	07-02-97	1000	regular	<0.013	<0.002	<0.001	<0.002	<0.002	<0.005	<0.006
2	405601091551901	07-10-97	1210	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
3	411511091155101	06-24-97	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
4	411843092105101	07-14-97	1030	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
5	412755091114101	06-25-97	0830	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
6	412927092575201	07-14-97	1430	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
7	413248092011301	07-07-97	1050	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
8	413540091341201	06-10-97	1215	do.	<.013	<.002	<.001	E.004	<.002	<.005	<.006
9	414208092312601	07-09-97	1150	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
10	414912093284201	07-15-97	0850	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
11	414958090230301	06-12-97	1005	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
12	415527092190301	07-17-97	0850	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
13	420117092505601	07-09-97	0850	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
14	421115091250501	07-24-97	0910	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
15	421705092142501	07-22-97	1250	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
16	422518092144701	07-22-97	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
17	422629092345001	07-23-97	1140	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1200	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
18	423419093172401	07-08-97	0950	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
19	423557091560501	08-27-97	0920	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
20	423639092350901	06-17-97	1450	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
21	424203092551301	07-31-97	1230	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
22	424548092101701	08-26-97	0910	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
23	425401093135201	07-31-97	0850	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
24	425756092162401	08-21-97	1210	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
25	430159093403201	07-29-97	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
26	430525093023501	07-30-97	1320	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
Agricultural land-use wells—Continued											
27	431222093313301	07-29-97	1250	regular	<0.013	<0.002	<0.001	<0.002	<0.002	<0.005	<0.006
28	431339093155901	07-30-97	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
29	432946093161901	08-18-97	1350	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
30	433815093000001	08-04-97	1240	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
31	435221093001901	08-05-97	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
Urban land-use wells											
32	412855091421601	06-26-97	0810	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
		07-10-97	0840	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
33	413414091095501	06-25-97	1110	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
34	413823091322301	06-09-97	1150	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
35	413933091304701	06-05-97	0935	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
36	414435090465101	06-23-97	0955	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1000	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006
37	415825091405601	07-17-97	1230	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
38	415827091392401	06-30-97	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
39	415850090572201	06-11-97	1310	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1330	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
40	420219093361301	07-15-97	1200	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
41	420240092535001	07-16-97	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
42	420347092541601	07-16-97	1210	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1215	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006
43	420936092005701	07-21-97	1220	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
44	421012092020101	07-21-97	0940	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
45	422426092272401	06-19-97	0940	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
46	422754092375301	07-23-97	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
47	422913092192501	06-18-97	0920	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
48	422918092183901	06-18-97	1255	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
49	423018092200901	08-26-97	1310	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
50	423459092523701	07-28-97	1050	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
51	423459092530501	07-28-97	1340	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
Urban land-use wells—Continued											
52	423930093294901	07-08-97	1440	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
53	424034091553401	08-27-97	1640	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
54	424322092283901	06-17-97	0935	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
55	430414092405801	08-21-97	0830	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
56	430442092402201	08-19-97	0930	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			0940	spike	.104	.123	.108	.100	.104	.013	.080
57	431438092262201	08-20-97	0900	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
58	433855093222401	08-06-97	1130	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
59	433944092583501	08-05-97	1140	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
60	434003092575401	08-06-97	0830	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
61	434023093214201	08-07-97	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			0905	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Aci- fluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bent- azon (38711)	Bromacil (04029)	Brom- oxynil (49311)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
2	405601091551901	07-10-97	1210	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
3	411511091155101	06-24-97	0900	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
4	411843092105101	07-14-97	1030	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
5	412755091114101	06-25-97	0830	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
6	412927092575201	07-14-97	1430	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
7	413248092011301	07-07-97	1050	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
8	413540091341201	06-10-97	1215	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
9	414208092312601	07-09-97	1150	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
10	414912093284201	07-15-97	0850	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.003	<.035	<.035
11	414958090230301	06-12-97	1005	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
12	415527092190301	07-17-97	0850	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.110	<.035	<.035
13	420117092505601	07-09-97	0850	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
14	421115091250501	07-24-97	0910	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
15	421705092142501	07-22-97	1250	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
16	422518092144701	07-22-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
17	422629092345001	07-23-97	1140	blank	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
			1200	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	--	<.035	<.035
18	423419093172401	07-08-97	0950	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
19	423557091560501	08-27-97	0920	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
20	423639092350901	06-17-97	1450	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
21	424203092551301	07-31-97	1230	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
22	424548092101701	08-26-97	0910	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
23	425401093135201	07-31-97	0850	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
24	425756092162401	08-21-97	1210	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021		<.035	<.035
25	430159093403201	07-29-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Ac- fluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bent- azon (38711)	Bromacil (04029)	Brom- oxynil (49311)
<b>Agricultural land-use wells—Continued</b>														
26	430525093023501	07-30-97	1320	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
27	431222093313301	07-29-97	1250	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
28	431339093155901	07-30-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
29	432946093161901	08-18-97	1350	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
30	433815093000001	08-04-97	1240	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
31	435221093001901	08-05-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
<b>Urban land-use wells</b>														
32	412855091421601	06-26-97	0810	blank	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
		07-10-97	0840	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	.120	<.035
33	413414091095501	06-25-97	1110	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
34	413823091322301	06-09-97	1150	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
35	413933091304701	06-05-97	0935	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
36	414435090465101	06-23-97	0955	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
			1000	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
37	415825091405601	07-17-97	1230	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.070	<.035	<.035
38	415827091392401	06-30-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
39	415850090572201	06-11-97	1310	blank	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
			1330	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
40	420219093361301	07-15-97	1200	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	E.009	<.035	<.035
41	420240092535001	07-16-97	0900	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
42	420347092541601	07-16-97	1210	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.050	<.035	<.035
			1215	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.060	<.035	<.035
43	420936092005701	07-21-97	1220	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
44	421012092020101	07-21-97	0940	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	.150	<.035	<.035
45	422426092272401	06-19-97	0940	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
46	422754092375301	07-23-97	0900	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
47	422913092192501	06-18-97	0920	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 4, 5-T (39742)	2, 4-D (39732)	2, 4-DB (38746)	Aci- fluorfen (49315)	Aldicarb (49312)	Aldicarb sulfone (49313)	Aldicarb sulfoxide (49314)	Bent- azon (38711)	Bromacil (04029)	Brom- oxynil (49311)
Urban land-use wells														
48	422918092183901	06-18-97	1255	regular	<0.035	<0.035	<0.035	<0.035	<0.016	<0.016	<0.021	<0.014	<0.035	<0.035
49	423018092200901	08-26-97	1310	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
50	423459092523701	07-28-97	1050	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
51	423459092530501	07-28-97	1340	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
52	423930093294901	07-08-97	1440	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
53	424034091553401	08-27-97	1640	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
54	424322092283901	06-17-97	0935	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
55	430414092405801	08-21-97	0830	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
56	430442092402201	08-19-97	0930	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
			0940	spike	.770	.730	.640	.890	.420	.260	.740	.790	.900	.790
57	431438092262201	08-20-97	0900	regular	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
58	433855093222401	08-06-97	1130	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
59	433944092583501	08-05-97	1140	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
60	434003092575401	08-06-97	0830	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
61	434023093214201	08-07-97	0900	do.	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035
			0905	replicate	<.035	<.035	<.035	<.035	<.016	<.016	<.021	<.014	<.035	<.035

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbo- furan (49309)	3-Hydroxy- carbo- furan (49308)	Chlor- amben (49307)	Chloro- thalonil (49306)	Clopy- ralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlo- benil (49303)	Dichlor- prop (49302)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
2	405601091551901	07-10-97	1210	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
3	411511091155101	06-24-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
4	411843092105101	07-14-97	1030	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
5	412755091114101	06-25-97	0830	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
6	412927092575201	07-14-97	1430	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
7	413248092011301	07-07-97	1050	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
8	413540091341201	06-10-97	1215	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
9	414208092312601	07-09-97	1150	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
10	414912093284201	07-15-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
11	414958090230301	06-12-97	1005	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
12	415527092190301	07-17-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
13	420117092505601	07-09-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
14	421115091250501	07-24-97	0910	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
15	421705092142501	07-22-97	1250	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
16	422518092144701	07-22-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
17	422629092345001	07-23-97	1140	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	E.010
			1200	regular	<.008	<.028	<.014	<.011	<.035	<.050	--	--	<.020	<.032
18	423419093172401	07-08-97	0950	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
19	423557091560501	08-27-97	0920	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
20	423639092350901	06-17-97	1450	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
21	424203092551301	07-31-97	1230	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
22	424548092101701	08-26-97	0910	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
23	425401093135201	07-31-97	0850	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
24	425756092162401	08-21-97	1210	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
25	430159093403201	07-29-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032



**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbo- furan (49309)	3-Hydroxy-	Chlor- amben (49307)	Chloro- thalonil (49306)	Clopy- ralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlo- benil (49303)	Dichlor- prop (49302)
							carbo- furan (49308)							
Agricultural land-use wells—Continued														
26	430525093023501	07-30-97	1320	regular	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
27	431222093313301	07-29-97	1250	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
28	431339093155901	07-30-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
29	432946093161901	08-18-97	1350	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
30	433815093000001	08-04-97	1240	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
31	435221093001901	08-05-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
		07-10-97	0840	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
33	413414091095501	06-25-97	1110	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
34	413823091322301	06-09-97	1150	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
35	413933091304701	06-05-97	0935	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
36	414435090465101	06-23-97	0955	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
			1000	replicate	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
37	415825091405601	07-17-97	1230	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
38	415827091392401	06-30-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
39	415850090572201	06-11-97	1310	blank	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
			1330	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
40	420219093361301	07-15-97	1200	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
41	420240092535001	07-16-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
42	420347092541601	07-16-97	1210	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
			1215	replicate	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
43	420936092005701	07-21-97	1220	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
44	421012092020101	07-21-97	0940	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
45	422426092272401	06-19-97	0940	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
46	422754092375301	07-23-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	E.010
47	422913092192501	06-18-97	0920	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbo- furan (49309)	3-Hydroxy- carbo- furan (49308)	Chlor- amben (49307)	Chloro- thalonil (49306)	Clopy- ralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlo- benil (49303)	Dichlor- prop (49302)
Urban land-use wells—Continued														
48	422918092183901	06-18-97	1255	regular	<0.008	<0.028	<0.014	<0.011	<0.035	<0.050	<0.017	<0.035	<0.020	<0.032
49	423018092200901	08-26-97	1310	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
50	423459092523701	07-28-97	1050	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
51	423459092530501	07-28-97	1340	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
52	423930093294901	07-08-97	1440	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
53	424034091553401	08-27-97	1640	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
54	424322092283901	06-17-97	0935	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
55	430414092405801	08-21-97	0830	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
56	430442092402201	08-19-97	0930	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
			0940	spike	.940	.890	.930	<.011	E.590	.400	E1.50	.790	E.500	.760
57	431438092262201	08-20-97	0900	regular	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
58	433855093222401	08-06-97	1130	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
59	433944092583501	08-05-97	1140	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
60	434003092575401	08-06-97	0830	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
61	434023093214201	08-07-97	0900	do.	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032
			0905	replicate	<.008	<.028	<.014	<.011	<.035	<.050	<.017	<.035	<.020	<.032

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen- valerate (49298)	Fenuron (49297)	Fluo- meturon (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
Agricultural land-use wells														
1	405405091335001	07-02-97	1000	regular	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026
2	405601091551901	07-10-97	1210	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
3	411511091155101	06-24-97	0900	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
4	411843092105101	07-14-97	1030	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
5	412755091114101	06-25-97	0830	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
6	412927092575201	07-14-97	1430	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
7	413248092011301	07-07-97	1050	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
8	413540091341201	06-10-97	1215	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
9	414208092312601	07-09-97	1150	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
10	414912093284201	07-15-97	0850	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
11	414958090230301	06-12-97	1005	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
12	415527092190301	07-17-97	0850	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
13	420117092505601	07-09-97	0850	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
14	421115091250501	07-24-97	0910	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
15	421705092142501	07-22-97	1250	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
16	422518092144701	07-22-97	0930	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
17	422629092345001	07-23-97	1140	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			1200	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
18	423419093172401	07-08-97	0950	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
19	423557091560501	08-27-97	0920	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
20	423639092350901	06-17-97	1450	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
21	424203092551301	07-31-97	1230	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
22	424548092101701	08-26-97	0910	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
23	425401093135201	07-31-97	0850	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
24	425756092162401	08-21-97	1210	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
25	430159093403201	07-29-97	0930	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
26	430525093023501	07-30-97	1320	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen- valerate (49298)	Fenuron (49297)	Fluo- meturon (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
Agricultural land-use wells—Continued														
27	431222093313301	07-29-97	1250	regular	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026
28	431339093155901	07-30-97	0930	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
29	432946093161901	08-18-97	1350	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
30	433815093000001	08-04-97	1240	regular	<.035	<.020	<.035	<.019	<.050	<.035	<.018	<.050	<.035	<.026
31	435221093001901	08-05-97	0930	do.	<.035	<.020	<.035	<.019	<.050	<.035	<.018	<.050	<.035	<.026
Urban land-use wells														
32	412855091421601	06-26-97	0810	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
		07-10-97	0840	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
33	413414091095501	06-25-97	1110	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
34	413823091322301	06-09-97	1150	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
35	413933091304701	06-05-97	0935	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
36	414435090465101	06-23-97	0955	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			1000	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
37	415825091405601	07-17-97	1230	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
38	415827091392401	06-30-97	0930	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
39	415850090572201	06-11-97	1310	blank	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			1330	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
40	420219093361301	07-15-97	1200	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
41	420240092535001	07-16-97	0900	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
42	420347092541601	07-16-97	1210	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			1215	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
43	420936092005701	07-21-97	1220	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
44	421012092020101	07-21-97	0940	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
45	422426092272401	06-19-97	0940	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
46	422754092375301	07-23-97	0900	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
47	422913092192501	06-18-97	0920	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
48	422918092183901	06-18-97	1255	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
49	423018092200901	08-26-97	1310	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
50	423459092523701	07-28-97	1050	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
51	423459092530501	07-28-97	1340	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Esfen- valerate (49298)	Fenuron (49297)	Fluo- meturon (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
Urban land-use wells—Continued														
52	423930093294901	07-08-97	1440	regular	<0.035	<0.020	<0.035	<0.019	<0.013	<0.035	<0.018	<0.050	<0.035	<0.026
53	424034091553401	08-27-97	1640	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
54	424322092283901	06-17-97	0935	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
55	430414092405801	08-21-97	0830	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
56	430442092402201	08-19-97	0930	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			0940	spike	.770	.910	E.580	E.280	1.00	.980	.920	.950	.640	.870
57	431438092262201	08-20-97	0900	regular	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
58	433855093222401	08-06-97	1130	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
59	433944092583501	08-05-97	1140	do.	<.035	<.020	<.035	<.019	<.050	<.035	<.018	<.050	<.035	<.026
60	434003092575401	08-06-97	0830	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
61	434023093214201	08-07-97	0900	do.	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026
			0905	replicate	<.035	<.020	<.035	<.019	<.013	<.035	<.018	<.050	<.035	<.026

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naph- thol (49295)	Neburon (49294)	Norflur- azon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
Agricultural land-use wells															
1	405405091335001	07-02-97	1000	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
2	405601091551901	07-10-97	1210	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
3	411511091155101	06-24-97	0900	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
4	411843092105101	07-14-97	1030	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
5	412755091114101	06-25-97	0830	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
6	412927092575201	07-14-97	1430	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
7	413248092011301	07-07-97	1050	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
8	413540091341201	06-10-97	1215	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
9	414208092312601	07-09-97	1150	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
10	414912093284201	07-15-97	0850	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
11	414958090230301	06-12-97	1005	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
12	415527092190301	07-17-97	0850	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
13	420117092505601	07-09-97	0850	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
14	421115091250501	07-24-97	0910	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
15	421705092142501	07-22-97	1250	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
16	422518092144701	07-22-97	0930	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
17	422629092345001	07-23-97	1140	blank	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
			1200	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
18	423419093172401	07-08-97	0950	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
19	423557091560501	08-27-97	0920	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
20	423639092350901	06-17-97	1450	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
21	424203092551301	07-31-97	1230	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
22	424548092101701	08-26-97	0910	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
23	425401093135201	07-31-97	0850	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
24	425756092162401	08-21-97	1210	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
25	430159093403201	07-29-97	0930	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
26	430525093023501	07-30-97	1320	do.	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naph- thol (49295)	Neburon (49294)	Norflur- azon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
Agricultural land-use wells—Continued															
27	431222093313301	07-29-97	1250	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
28	431339093155901	07-30-97	0930	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
29	432946093161901	08-18-97	1350	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
30	433815093000001	08-04-97	1240	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
31	435221093001901	08-05-97	0930	do.	<.017	<.007	<.015	<.024	<.019	<.018	.830	<.035	<.035	<.021	<.050
Urban land-use wells															
32	412855091421601	06-26-97	0810	blank	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
		07-10-97	0840	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
33	413414091095501	06-25-97	1110	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
34	413823091322301	06-09-97	1150	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
35	413933091304701	06-05-97	0935	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
36	414435090465101	06-23-97	0955	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
			1000	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
37	415825091405601	07-17-97	1230	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
38	415827091392401	06-30-97	0930	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
39	415850090572201	06-11-97	1310	blank	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
			1330	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
40	420219093361301	07-15-97	1200	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
41	420240092535001	07-16-97	0900	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
42	420347092541601	07-16-97	1210	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
			1215	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
43	420936092005701	07-21-97	1220	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
44	421012092020101	07-21-97	0940	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
45	422426092272401	06-19-97	0940	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
46	422754092375301	07-23-97	0900	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
47	422913092192501	06-18-97	0920	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
48	422918092183901	06-18-97	1255	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
49	423018092200901	08-26-97	1310	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
50	423459092523701	07-28-97	1050	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
51	423459092530501	07-28-97	1340	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050

**Table 21.** Selected dissolved pesticide concentrations in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	1-Naph- thol (49295)	Neburon (49294)	Norflur- azon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
Urban land-use wells—Continued															
52	423930093294901	07-08-97	1440	regular	<0.017	<0.007	<0.015	<0.024	<0.019	<0.018	<0.050	<0.035	<0.035	<0.021	<0.050
53	424034091553401	08-27-97	1640	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
54	424322092283901	06-17-97	0935	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
55	430414092405801	08-21-97	0830	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
56	430442092402201	08-19-97	0930	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
			0940	spike	.930	<.007	.880	.890	.740	.740	E1.47	1.08	1.19	.770	.770
57	431438092262201	08-20-97	0900	regular	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
58	433855093222401	08-06-97	1130	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
59	433944092583501	08-05-97	1140	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
60	434003092575401	08-06-97	0830	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
61	434023093214201	08-07-97	0900	do.	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050
			0905	replicate	<.017	<.007	<.015	<.024	<.019	<.018	<.050	<.035	<.035	<.021	<.050



**Table 22.** Concentrations of selected dissolved pesticide surrogates in samples from land-use wells, 1997

[% , percent; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Diazinon, surrogate (% recovery) (91063)	Terbuthylazine, surrogate (% recovery) (91064)	alpha-HCH-d6, surrogate (% recovery) (91065)	BDMC, surrogate (% recovery) (99835)
Agricultural land-use wells								
1	405405091335001	07-02-97	1000	regular	106	111	92.3	80.0
2	405601091551901	07-10-97	1210	do.	102	119	101	89.0
3	411511091155101	06-24-97	0900	do.	91.9	115	98.2	90.0
4	411843092105101	07-14-97	1030	do.	89.2	109	95.5	93.0
5	412755091114101	06-25-97	0830	do.	100	112	97.2	97.0
6	412927092575201	07-14-97	1430	do.	95.8	121	107	87.0
7	413248092011301	07-07-97	1050	do.	92.6	109	101	84.0
8	413540091341201	06-10-97	1215	do.	96.5	123	116	80.0
9	414208092312601	07-09-97	1150	do.	95.3	112	101	--
10	414912093284201	07-15-97	0850	do.	79.6	107	78.1	107
11	414958090230301	06-12-97	1005	do.	99.1	118	103	76.0
12	415527092190301	07-17-97	0850	do.	93.8	119	112	96.0
13	420117092505601	07-09-97	0850	do.	100	115	105	100
14	421115091250501	07-24-97	0910	do.	86.2	109	94.4	87.0
15	421705092142501	07-22-97	1250	do.	96.3	129	99.0	93.0
16	422518092144701	07-22-97	0930	do.	98.1	121	95.1	116
17	422629092345001	07-23-97	1140	blank	100	103	93.5	95.0
			1200	regular	87.3	107	92.7	94.0
18	423419093172401	07-08-97	0950	do.	119	116	107	77.0
19	423557091560501	08-27-97	0920	do.	92.6	104	108	81.0
20	423639092350901	06-17-97	1450	do.	98.2	120	107	76.0
21	424203092551301	07-31-97	1230	do.	89.4	118	97.3	93.0
22	424548092101701	08-26-97	0910	do.	140	104	82.7	82.0
23	425401093135201	07-31-97	0850	do.	55.9	78.8	67.1	82.0
24	425756092162401	08-21-97	1210	do.	92.8	111	95.5	84.0

**Table 22.** Concentrations of selected dissolved pesticide surrogates in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Diazinon, surrogate (% recovery) (91063)	Terbuthylazine, surrogate (% recovery) (91064)	alpha-HCH-d6, surrogate (% recovery) (91065)	BDMC, surrogate (% recovery) (99835)
Agricultural land-use wells—Continued								
25	430159093403201	07-29-97	0930	regular	82.4	100	81.2	89.0
26	430525093023501	07-30-97	1320	do.	74.5	95.4	83.3	78.0
27	431222093313301	07-29-97	1250	do.	69.7	102	81.3	80.0
28	431339093155901	07-30-97	0930	do.	65.1	86.4	75.4	84.0
29	432946093161901	08-18-97	1350	do.	94.6	109	102	85.0
30	433815093000001	08-04-97	1240	do.	90.3	110	103	106
31	435221093001901	08-05-97	0930	do.	82.3	109	94.8	83.0
Urban land-use wells								
32	412855091421601	06-26-97	0810	blank	103	122	105	97.0
		07-10-97	0840	regular	103	116	101	90.0
33	413414091095501	06-25-97	1110	do.	95.4	108	97.2	93.0
34	413823091322301	06-09-97	1150	do.	90.5	113	107	75.0
35	413933091304701	06-05-97	0935	do.	108	115	97.2	79.0
36	414435090465101	06-23-97	0955	do.	88.7	102	96.2	91.0
			1000	replicate	99.1	114	107	98.0
37	415825091405601	07-17-97	1230	regular	97.1	108	105	106
38	415827091392401	06-30-97	0930	do.	95.1	110	95.2	96.0
39	415850090572201	06-11-97	1310	blank	96.2	114	103	94.0
			1330	do.	94.5	119	106	81.0
40	420219093361301	07-15-97	1200	do.	85.1	122	87.9	109
41	420240092535001	07-16-97	0900	regular	70.4	90.7	67.3	99.0
42	420347092541601	07-16-97	1210	do.	63.4	90.8	67.8	96.0
			1215	replicate	68.6	91.2	65.9	92.0
43	420936092005701	07-21-97	1220	regular	103	123	96.3	78.0
44	421012092020101	07-21-97	0940	do.	95.6	133	88.4	98.0
45	422426092272401	06-19-97	0940	do.	102	115	108	79.0
46	422754092375301	07-23-97	0900	do.	90.6	105	97.3	96.0

**Table 22.** Concentrations of selected dissolved pesticide surrogates in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Diazinon, surrogate (% recovery) (91063)	Terbuthylazine, surrogate (% recovery) (91064)	alpha-HCH-d6, surrogate (% recovery) (91065)	BDMC, surrogate (% recovery) (99835)
Urban land-use wells—Continued								
47	422913092192501	06-18-97	0920	regular	102	119	109	102
48	422918092183901	06-18-97	1255	do.	98.2	116	105	80.0
49	423018092200901	08-26-97	1310	do.	152	105	83.6	87.0
50	423459092523701	07-28-97	1050	do.	74.2	103	89.6	81.0
51	423459092530501	07-28-97	1340	do.	75.4	89.3	80.9	84.0
52	423930093294901	07-08-97	1440	do.	97.1	114	103	87.0
53	424034091553401	08-27-97	1640	do.	99.1	106	99.1	88.0
54	424322092283901	06-17-97	0935	do.	107	126	106	78.0
55	430414092405801	08-21-97	0830	do.	102	112	102	94.0
56	430442092402201	08-19-97	0930	do.	96.4	114	105	73.0
			0940	spike	105	113	105	93.0
57	431438092262201	08-20-97	0900	regular	97.3	114	100	90.0
58	433855093222401	08-06-97	1130	do.	97.3	112	101	90.0
59	433944092583501	08-05-97	1140	do.	82.3	106	96.3	94.0
60	434003092575401	08-06-97	0830	do.	86.9	111	101	85.0
61	434023093214201	08-07-97	0900	do.	90.2	105	102	92.0
			0905	replicate	93.6	106	105	78.0

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997

[All concentrations are in micrograms per liter, except as noted. <, less than detection limit indicated; E, estimated; --, data not collected; %, percent. Numbers in parentheses () are U.S. Geological Survey Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,1,2- Tetra- chloro- ethane (77562)	1,1,1- Trichloro- ethane (34506)	1,1,2,2- Tetra- chloro- ethane (34516)	1,1,2- Trichloro- ethane (34511)	1,1,2- Trichloro- trifluoro- ethane (77652)	1,1- Dichloro- ethane (34496)	1,1- Dichloro- ethylene (34501)	1,1- Dichloro- propene (77168)	1,2,3,4- Tetra- methyl- benzene (49999)
Agricultural land-use wells													
1	405405091335001	07-02-97	0959	regular	<0.044	<0.032	<0.132	<0.064	<0.032	<0.066	<0.044	<0.026	<0.230
2	405601091551901	07-10-97	1209	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
3	411511091155101	06-24-97	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
4	411843092105101	07-14-97	1029	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
5	412755091114101	06-25-97	0829	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
6	412927092575201	07-14-97	1429	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
7	413248092011301	07-07-97	1049	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
8	413540091341201	06-10-97	1214	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
9	414208092312601	07-09-97	1149	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
10	414912093284201	07-15-97	0849	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
11	414958090230301	06-12-97	1004	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
12	415527092190301	07-17-97	0849	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
13	420117092505601	07-09-97	0849	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
14	421115091250501	07-24-97	0909	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
15	421705092142501	07-22-97	1249	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
16	422518092144701	07-22-97	0929	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
17	422629092345001	07-23-97	1159	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
18	423419093172401	07-08-97	0949	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
19	423557091560501	08-27-97	0919	do.	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
20	423639092350901	06-17-97	1429	blank	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			1449	regular	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
21	424203092551301	07-31-97	1229	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
22	424548092101701	08-26-97	0909	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
23	425401093135201	07-31-97	0829	blank	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,1,2- Tetra- chloro- ethane (77562)	1,1,1- Trichloro- ethane (34506)	1,1,2,2- Tetra- chloro- ethane (34516)	1,1,2- Trichloro- ethane (34511)	1,1,2- Trichloro- trifluoro- ethane (77652)	1,1- Dichloro- ethane (34496)	1,1- Dichloro- ethylene (34501)	1,1- Dichloro- propene (77168)	1,2,3,4- Tetra- methyl- benzene (49999)
Agricultural land-use wells—Continued													
23	425401093135201	07-31-97	0849	regular	<0.044	<0.032	<0.132	<0.064	<0.032	<0.066	<0.044	<0.026	<0.230
24	425756092162401	08-21-97	1209	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
25	430159093403201	07-29-97	0929	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
26	430525093023501	07-30-97	1319	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
27	431222093313301	07-29-97	1249	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
28	431339093155901	07-30-97	0919	blank	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0929	regular	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
29	432946093161901	08-18-97	1349	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
30	433815093000001	08-04-97	1239	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
31	435221093001901	08-05-97	0929	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
Urban land-use wells													
32	412855091421601	07-10-97	0839	regular	<.044	<.032	<.132	<.064	<.032	E.070	<.044	<.026	<.230
33	413414091095501	06-25-97	1109	do.	<.044	E.020	<.132	<.064	<.032	<.066	<.044	<.026	<.230
34	413823091322301	06-09-97	1149	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
35	413933091304701	06-05-97	0934	do.	<.050	<.050	<.100	<.100	<.050	<.050	<.100	<.050	<.050
36	414435090465101	06-23-97	0954	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0959	replicate	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
37	415825091405601	07-17-97	1229	regular	<.044	<.032	<.132	<.064	<.032	E.090	<.044	<.026	<.230
38	415827091392401	06-30-97	0929	do.	<.044	.134	<.132	<.064	<.032	<.066	<.044	<.026	<.230
39	415850090572201	06-11-97	1329	do.	<.044	E.010	<.132	<.064	<.032	<.066	<.044	<.026	<.230
40	420219093361301	07-15-97	1139	blank	<.044	E.020	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			1159	regular	<.044	<.032	<.132	<.064	<.032	E.010	<.044	<.026	<.230
41	420240092535001	07-16-97	0859	do.	<.044	<.032	<.132	<.064	<.032	.364	.256	<.026	<.230
42	420347092541601	07-16-97	1209	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			1214	replicate	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
43	420936092005701	07-21-97	1219	regular	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
44	421012092020101	07-21-97	0939	do.	<.044	<.032	<.132	<.064	<.032	<.200	<.044	<.026	<.230

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,1,2,- Tetra- chloro- ethane (77562)	1,1,1- Trichloro- ethane (34506)	1,1,2,2- Tetra- chloro- ethane (34516)	1,1,2- Trichloro- ethane (34511)	1,1,2- Trichloro- trifluoro- ethane (77652)	1,1- Dichloro- ethane (34496)	1,1- Dichloro- ethylene (34501)	1,1- Dichloro- propene (77168)	1,2,3,4- Tetra- methyl- benzene (49999)
Urban land-use wells—Continued													
45	422426092272401	06-19-97	0939	regular	<0.044	<0.032	<0.132	<0.064	<0.032	<0.066	<0.044	<0.026	<0.230
46	422754092375301	07-23-97	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
47	422913092192501	06-18-97	0919	do.	<.044	E.010	<.132	<.064	<.032	E.020	E.010	<.026	<.230
48	422918092183901	06-18-97	1254	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
49	423018092200901	08-26-97	1309	do.	<.044	E.040	<.132	<.064	<.032	<.066	<.044	<.026	<.230
50	423459092523701	07-28-97	1049	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
51	423459092530501	07-28-97	1339	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
52	423930093294901	07-08-97	1439	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
53	424034091553401	08-27-97	1639	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
54	424322092283901	06-17-97	0934	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<10.0
55	430414092405801	08-21-97	0829	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
56	430442092402201	08-19-97	0929	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0940	spike	<.044	2.41	<.132	<.064	E.010	<.066	2.27	<.026	<.230
57	431438092262201	08-20-97	0859	regular	<.044	E.020	<.132	<.064	<.032	<.066	<.044	<.026	<.230
58	433855093222401	08-06-97	1129	do.	<.088	<.064	<.264	<.128	<.064	<.132	<.088	<.052	<.460
59	433944092583501	08-05-97	1139	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
60	434003092575401	08-06-97	0829	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
61	434023093214201	08-07-97	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0904	replicate	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2,3,5- Tetra- methyl- benzene (50000)	1,2,3- Trichloro- benzene (77613)	1,2,3- Trichloro- propane (77443)	1,2,3- Trimethyl- benzene (77221)	1,2,4- Trichloro- benzene (34551)	1,2,4- Trimethyl- benzene (77222)	1,2- Dibromo-3- chloro- propane (82625)	1,2- Dibromo- ethane (77651)	1,2- Dichloro- benzene (34536)
Agricultural land-use wells													
1	405405091335001	07-02-97	0959	regular	<0.240	<0.266	<0.070	<0.124	<0.188	<0.056	<0.214	<0.036	<0.048
2	405601091551901	07-10-97	1209	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	E.007
3	411511091155101	06-24-97	0859	do.	<.240	<.266	<.070	<.124	<.188	E.007	<.214	<.036	<.048
4	411843092105101	07-14-97	1029	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
5	412755091114101	06-25-97	0829	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
6	412927092575201	07-14-97	1429	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
7	413248092011301	07-07-97	1049	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
8	413540091341201	06-10-97	1214	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
9	414208092312601	07-09-97	1149	do.	<.240	<.266	<.070	<.124	<.188	E.020	<.214	<.036	<.048
10	414912093284201	07-15-97	0849	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
11	414958090230301	06-12-97	1004	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
12	415527092190301	07-17-97	0849	do.	<.240	<.266	<.070	<.124	<.188	E.020	<.214	<.036	<.048
13	420117092505601	07-09-97	0849	do.	<.240	<.266	<.070	<.124	<.188	.193	<.214	<.036	<.048
14	421115091250501	07-24-97	0909	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
15	421705092142501	07-22-97	1249	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
16	422518092144701	07-22-97	0929	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
17	422629092345001	07-23-97	1159	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
18	423419093172401	07-08-97	0949	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
19	423557091560501	08-27-97	0919	do.	<.960	<1.06	<.280	<.496	<.752	<.224	<.856	<.144	<.192
20	423639092350901	06-17-97	1429	blank	E.020	<.266	<.070	<.124	<.188	E.070	<.214	<.036	<.048
			1449	regular	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
21	424203092551301	07-31-97	1229	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
22	424548092101701	08-26-97	0909	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
23	425401093135201	07-31-97	0829	blank	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0849	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
24	425756092162401	08-21-97	1209	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2,3,5- Tetra- methyl- benzene (50000)	1,2,3- Trichloro- benzene (77613)	1,2,3- Trichloro- propane (77443)	1,2,3- Trimethyl- benzene (77221)	1,2,4- Trichloro- benzene (34551)	1,2,4- Trimethyl- benzene (77222)	1,2,- Dibromo-3- chloro- propane (82625)	1,2- Dibromo- ethane (77651)	1,2- Dichloro- benzene (34536)
Agricultural land-use wells—Continued													
25	430159093403201	07-29-97	0929	regular	<.240	<.266	<.070	<.124	<.188	E.006	<.214	<.036	<.048
26	430525093023501	07-30-97	1319	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
27	431222093313301	07-29-97	1249	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
28	431339093155901	07-30-97	0919	blank	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0929	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
29	432946093161901	08-18-97	1349	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
30	433815093000001	08-04-97	1239	do.	<.240	<.266	<.070	E.010	<.188	E.020	<.214	<.036	<.048
31	435221093001901	08-05-97	0929	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
Urban land-use wells													
32	412855091421601	07-10-97	0839	do.	<.240	E.020	<.070	<.124	<.188	<.056	<.214	<.036	.749
33	413414091095501	06-25-97	1109	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
34	413823091322301	06-09-97	1149	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
35	413933091304701	06-05-97	0934	do.	<.050	<.200	<.200	<.050	<.200	<.050	<.500	<.100	<.050
36	414435090465101	06-23-97	0954	do.	<.240	<.266	<.070	<.124	<.188	E.007	<.214	<.036	<.048
			0959	replicate	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
37	415825091405601	07-17-97	1229	regular	<.240	<.266	<.070	<.124	<.188	E.020	<.214	<.036	<.048
38	415827091392401	06-30-97	0929	do.	<.240	<.266	<.070	<.124	<.188	E.020	<.214	<.036	<.048
39	415850090572201	06-11-97	1329	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
40	420219093361301	07-15-97	1139	blank	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			1159	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
41	420240092535001	07-16-97	0859	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	E.006
42	420347092541601	07-16-97	1209	replicate	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			1214	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
43	420936092005701	07-21-97	1219	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
44	421012092020101	07-21-97	0939	do.	<.240	<.266	.207	.242	<.188	.253	<.214	<.036	<.048
45	422426092272401	06-19-97	0939	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
46	422754092375301	07-23-97	0859	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048



**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2,3,5- Tetra- methyl- benzene (50000)	1,2,3- Trichloro- benzene (77613)	1,2,3- Trichloro- propane (77443)	1,2,3- Trimethyl- benzene (77221)	1,2,4- Trichloro- benzene (34551)	1,2,4- Trimethyl- benzene (77222)	1,2- Dibromo-3- chloro- propane (82625)	1,2- Dibromo- ethane (77651)	1,2- Dichloro- benzene (34536)
Urban land-use wells—Continued													
47	422913092192501	06-18-97	0919	regular	<0.240	<0.266	<0.070	<0.124	<0.188	<0.056	<0.214	<0.036	<0.048
48	422918092183901	06-18-97	1254	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
49	423018092200901	08-26-97	1309	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
50	423459092523701	07-28-97	1049	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
51	423459092530501	07-28-97	1339	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
52	423930093294901	07-08-97	1439	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
53	424034091553401	08-27-97	1639	do.	<.240	<.266	<.070	<.124	<.188	E.010	<.214	<.036	<.048
54	424322092283901	06-17-97	0934	do.	15.0	<.266	<.070	.168	<.188	4.49	<.214	<.036	<.048
55	430414092405801	08-21-97	0829	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
56	430442092402201	08-19-97	0929	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0940	spike	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
57	431438092262201	08-20-97	0859	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
58	433855093222401	08-06-97	1129	do.	<.480	<.532	<.140	<.248	<.376	<.112	<.428	<.072	<.096
59	433944092583501	08-05-97	1139	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
60	434003092575401	08-06-97	0829	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
61	434023093214201	08-07-97	0859	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0904	replicate	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2- Dichloro- ethane (32103)	1,2-Dichloro- ethane-d4 surrogate (% recovery) (99832)	1,2-Dichloro- propane (34541)	1,3,5- Trimethyl- benzene (77226)	1,3- Dichloro- benzene (34566)	1,3- Dichloro- propane (77173)	1,4-Bromo- fluorobenzene surrogate (% recovery) (99834)	1,4- Dichloro- benzene (34571)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.134	104	<0.068	<0.044	<0.054	<0.116	94.0	<0.050
2	405601091551901	07-10-97	1209	do.	<.134	103	<.068	<.044	<.054	<.116	95.0	<.050
3	411511091155101	06-24-97	0859	do.	<.134	124	<.068	<.044	<.054	<.116	101	<.050
4	411843092105101	07-14-97	1029	do.	<.134	106	<.068	<.044	<.054	<.116	95.0	<.050
5	412755091114101	06-25-97	0829	do.	<.134	127	<.068	<.044	<.054	<.116	101	<.050
6	412927092575201	07-14-97	1429	do.	<.134	99.0	<.068	<.044	<.054	<.116	94.0	<.050
7	413248092011301	07-07-97	1049	do.	<.134	104	<.068	<.044	<.054	<.116	96.0	<.050
8	413540091341201	06-10-97	1214	do.	<.134	106	<.068	<.044	<.054	<.116	102	<.050
9	414208092312601	07-09-97	1149	do.	<.134	102	<.068	<.044	<.054	<.116	95.0	<.050
10	414912093284201	07-15-97	0849	do.	<.134	107	<.068	<.044	<.054	<.116	94.0	<.050
11	414958090230301	06-12-97	1004	do.	<.134	103	<.068	<.044	<.054	<.116	94.0	<.050
12	415527092190301	07-17-97	0849	do.	<.134	105	<.068	<.044	<.054	<.116	95.0	<.050
13	420117092505601	07-09-97	0849	do.	<.134	103	<.068	<.044	<.054	<.116	97.0	<.050
14	421115091250501	07-24-97	0909	do.	<.134	101	<.068	<.044	<.054	<.116	92.0	<.050
15	421705092142501	07-22-97	1249	do.	<.134	103	<.068	<.044	<.054	<.116	93.0	<.050
16	422518092144701	07-22-97	0929	do.	<.134	101	<.068	<.044	<.054	<.116	95.0	<.050
17	422629092345001	07-23-97	1159	do.	<.134	104	<.068	<.044	<.054	<.116	93.0	<.050
18	423419093172401	07-08-97	0949	do.	<.134	101	<.068	<.044	<.054	<.116	97.0	<.050
19	423557091560501	08-27-97	0919	do.	<.536	108	<.272	<.176	<.216	<.464	99.0	<.200
20	423639092350901	06-17-97	1429	blank	<.134	116	<.068	E.010	<.054	<.116	99.0	<.050
			1449	regular	<.134	113	<.068	<.044	<.054	<.116	100	<.050
21	424203092551301	07-31-97	1229	do.	<.134	105	<.068	<.044	<.054	<.116	93.0	<.050
22	424548092101701	08-26-97	0909	do.	<.134	98.0	<.068	<.044	<.054	<.116	96.0	<.050
23	425401093135201	07-31-97	0829	blank	<.134	97.0	<.068	<.044	<.054	<.116	91.0	<.050
			0849	regular	<.134	102	<.068	<.044	<.054	<.116	90.0	<.050
24	425756092162401	08-21-97	1209	do.	<.134	97.0	<.068	<.044	<.054	<.116	93.0	<.050

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2- Dichloro- ethane (32103)	1,2-Dichloro- ethane-d4 surrogate (% recovery) (99832)	1,2-Dichloro- propane (34541)	1,3,5- Trimethyl- benzene (77226)	1,3- Dichloro- benzene (34566)	1,3- Dichloro- propane (77173)	1,4-Bromo- fluorobenzene surrogate (% recovery) (99834)	1,4- Dichloro- benzene (34571)
Agricultural land-use wells—Continued												
25	430159093403201	07-29-97	0929	regular	<.134	106	<.068	<.044	<.054	<.116	96.0	<.050
26	430525093023501	07-30-97	1319	do.	<.134	106	<.068	<.044	<.054	<.116	93.0	<.050
27	431222093313301	07-29-97	1249	do.	<.134	105	<.068	<.044	<.054	<.116	93.0	<.050
28	431339093155901	07-30-97	0919	blank	<.134	104	<.068	<.044	<.054	<.116	90.0	<.050
			0929	regular	<.134	104	<.068	<.044	<.054	<.116	93.0	<.050
29	432946093161901	08-18-97	1349	do.	<.134	102	<.068	<.044	<.054	<.116	94.0	<.050
30	433815093000001	08-04-97	1239	do.	<.134	102	<.068	E.004	<.054	<.116	90.0	<.050
31	435221093001901	08-05-97	0929	do.	<.134	102	<.068	<.044	<.054	<.116	91.0	<.050
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	.382	101	<.068	<.044	E.010	<.116	95.0	.166
33	413414091095501	06-25-97	1109	do.	<.134	126	<.068	<.044	<.054	<.116	102	<.050
34	413823091322301	06-09-97	1149	do.	<.134	108	<.068	<.044	<.054	<.116	95.0	<.050
35	413933091304701	06-05-97	0934	do.	<.050	100	<.050	<.050	<.050	<.050	99.0	<.050
36	414435090465101	06-23-97	0954	do.	<.134	105	<.068	<.044	<.054	<.116	91.0	<.050
			0959	replicate	<.134	107	<.068	<.044	<.054	<.116	92.0	<.050
37	415825091405601	07-17-97	1229	regular	<.134	107	<.068	<.044	<.054	<.116	96.0	<.050
38	415827091392401	06-30-97	0929	do.	<.134	133	<.068	<.044	<.054	<.116	98.0	<.050
39	415850090572201	06-11-97	1329	do.	<.134	102	<.068	<.044	<.054	<.116	101	<.050
40	420219093361301	07-15-97	1139	blank	<.134	108	<.068	<.044	<.054	<.116	95.0	<.050
			1159	regular	<.134	106	<.068	<.044	<.054	<.116	93.0	<.050
41	420240092535001	07-16-97	0859	do.	<.134	107	E.020	<.044	<.054	<.116	95.0	<.050
42	420347092541601	07-16-97	1209	do.	<.134	103	<.068	<.044	<.054	<.116	94.0	<.050
			1214	replicate	<.134	106	<.068	<.044	<.054	<.116	96.0	<.050
43	420936092005701	07-21-97	1219	regular	.149	105	<.068	<.044	<.054	<.116	89.0	<.050
44	421012092020101	07-21-97	0939	do.	33.4	--	.416	E.070	<.054	<.116	99.0	<.050
45	422426092272401	06-19-97	0939	do.	<.134	107	<.068	<.044	<.054	<.116	90.0	<.050

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2- Dichloro- ethane (32103)	1,2-Dichloro- ethane-d4 surrogate (% recovery) (99832)	1,2-Dichloro- propane (34541)	1,3,5- Trimethyl- benzene (77226)	1,3- Dichloro- benzene (34566)	1,3- Dichloro- propane (77173)	1,4-Bromo- fluorobenzene surrogate (% recovery) (99834)	1,4- Dichloro- benzene (34571)
Urban land-use wells—Continued												
46	422754092375301	07-23-97	0859	regular	<0.134	103	<0.068	<0.044	<0.054	<0.116	96.0	<0.050
47	422913092192501	06-18-97	0919	do.	<.134	114	<.068	<.044	<.054	<.116	101	<.050
48	422918092183901	06-18-97	1254	do.	<.134	109	<.068	<.044	<.054	<.116	95.0	<.050
49	423018092200901	08-26-97	1309	do.	<.134	105	<.068	<.044	<.054	<.116	101	<.050
50	423459092523701	07-28-97	1049	do.	<.134	102	<.068	<.044	<.054	<.116	103	<.050
51	423459092530501	07-28-97	1339	do.	<.134	98.0	<.068	<.044	<.054	<.116	102	<.050
52	423930093294901	07-08-97	1439	do.	<.134	104	<.068	<.044	<.054	<.116	99.0	<.050
53	424034091553401	08-27-97	1639	do.	<.134	105	<.068	<.044	<.054	<.116	98.0	<.050
54	424322092283901	06-17-97	0934	do.	<.700	--	<.076	9.48	<.054	<.116	101	<.050
55	430414092405801	08-21-97	0829	do.	<.134	97.0	<.068	<.044	<.054	<.116	93.0	<.050
56	430442092402201	08-19-97	0929	do.	<.134	104	<.068	<.044	<.054	<.116	93.0	<.050
			0940	spike	2.46	99.0	<.068	<.044	<.054	<.116	92.0	1.99
57	431438092262201	08-20-97	0859	regular	<.134	96.0	<.068	<.044	<.054	<.116	94.0	<.050
58	433855093222401	08-06-97	1129	do.	<.268	102	<.136	<.088	<.108	<.232	91.0	<.100
59	433944092583501	08-05-97	1139	do.	<.134	105	<.068	<.044	<.054	<.116	96.0	<.050
60	434003092575401	08-06-97	0829	do.	<.134	103	<.068	<.044	<.054	<.116	91.0	<.050
61	434023093214201	08-07-97	0859	do.	<.134	105	<.068	<.044	<.054	<.116	92.0	<.050
			0904	replicate	<.134	103	<.068	<.044	<.054	<.116	89.0	<.050

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	2,2- Dichloro- propane (77170)	2-Butanone (81595)	2-Chloro- toluene (77275)	2-Hexanone (77103)	3-Chloro- propene (78109)	4-Chloro- toluene (77277)	4-Isopropyl- 1-methyl- benzene (77356)	4-Methyl-2- pentanone (78133)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.078	<1.65	<0.042	<0.746	<0.196	<0.056	<0.110	<0.374
2	405601091551901	07-10-97	1209	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
3	411511091155101	06-24-97	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
4	411843092105101	07-14-97	1029	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
5	412755091114101	06-25-97	0829	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
6	412927092575201	07-14-97	1429	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
7	413248092011301	07-07-97	1049	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
8	413540091341201	06-10-97	1214	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
9	414208092312601	07-09-97	1149	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
10	414912093284201	07-15-97	0849	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
11	414958090230301	06-12-97	1004	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
12	415527092190301	07-17-97	0849	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
13	420117092505601	07-09-97	0849	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
14	421115091250501	07-24-97	0909	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
15	421705092142501	07-22-97	1249	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
16	422518092144701	07-22-97	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
17	422629092345001	07-23-97	1159	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
18	423419093172401	07-08-97	0949	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
19	423557091560501	08-27-97	0919	do.	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
20	423639092350901	06-17-97	1429	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1449	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
21	424203092551301	07-31-97	1229	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
22	424548092101701	08-26-97	0909	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
23	425401093135201	07-31-97	0829	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0849	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
24	430159093403201	07-29-97	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	2,2- Dichloro- propane (77170)	2-Butanone (81595)	2-Chloro- toluene (77275)	2-Hesanone (77103)	3-Chloro- propene (78109)	4-Chloro- toluene (77277)	4-Isopropyl- 1-methyl- benzene (77356)	4-Methyl-2- pentanone (78133)
Agricultural land-use wells—Continued												
25	430525093023501	07-30-97	1319	regular	<0.078	<1.65	<0.042	<.746	<0.196	<0.056	<0.110	<0.374
26	431222093313301	07-29-97	1249	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
27	431339093155901	07-30-97	0919	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
28	431339093155901	07-30-97	0929	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1349	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
29	433815093000001	08-04-97	1239	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
30	435221093001901	08-05-97	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
33	413414091095501	06-25-97	1109	do.	<.078	E.400	<.042	<.746	<.196	<.056	<.110	<.374
34	413823091322301	06-09-97	1149	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
35	413933091304701	06-05-97	0934	do.	<.050	<5.00	<.050	<5.00	<.100	<.050	<.050	<5.00
36	414435090465101	06-23-97	0954	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0959	replicate	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
37	415825091405601	07-17-97	1229	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
38	415827091392401	06-30-97	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
39	415850090572201	06-11-97	1329	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
40	420219093361301	07-15-97	1139	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1159	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
41	420240092535001	07-16-97	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
42	420347092541601	07-16-97	1209	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1214	replicate	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
43	420936092005701	07-21-97	1219	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
44	421012092020101	07-21-97	0939	do.	<.078	7.07	<.042	<.746	<.196	<.056	<.110	<.374
45	422426092272401	06-19-97	0939	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
46	422754092375301	07-23-97	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
47	422913092192501	06-18-97	0919	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	2,2- Dichloro- propane (77170)	2-Butanone (81595)	2-Chloro- toluene (77275)	2-Hesanone (77103)	3-Chloro- propene (78109)	4-Chloro- toluene (77277)	4-Isopropyl- 1-methyl- benzene (77356)	4-Methyl-2- pentanone (78133)
Urban land-use wells—Continued												
48	422918092183901	06-18-97	1254	regular	<0.078	<1.65	<0.042	<0.746	<0.196	<0.056	<0.110	<0.374
49	423018092200901	08-26-97	1309	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
50	423459092523701	07-28-97	1049	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
51	423459092530501	07-28-97	1339	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
52	423930093294901	07-08-97	1439	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
53	424034091553401	08-27-97	1639	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
54	424322092283901	06-17-97	0934	do.	<.078	47.4	<.042	<.746	<.196	<.056	<.110	<.374
55	430414092405801	08-21-97	0829	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
56	430442092402201	08-19-97	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0940	spike	<.078	6.59	<.042	<.746	<.196	<.056	<.110	<.374
57	431438092262201	08-20-97	0859	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
58	433855093222401	08-06-97	1129	do.	<.156	<3.30	<.084	<1.49	<.392	<.112	E.030	<.748
59	433944092583501	08-05-97	1139	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
60	434003092575401	08-06-97	0829	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
61	434023093214201	08-07-97	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0904	replicate	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Acetone (81552)	Acrylonitrile (34215)	Benzene (34030)	Bromo- benzene (81555)	Bromo- chloro- methane (77297)	Bromo- dichloro- methane (32101)	Bromoethene (50002)
Agricultural land-use wells											
1	405405091335001	07-02-97	0959	regular	<4.90	<1.23	<0.032	<0.036	<0.044	<0.048	<0.100
2	405601091551901	07-10-97	1209	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
3	411511091155101	06-24-97	0859	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
4	411843092105101	07-14-97	1029	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
5	412755091114101	06-25-97	0829	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
6	412927092575201	07-14-97	1429	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
7	413248092011301	07-07-97	1049	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
8	413540091341201	06-10-97	1214	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
9	414208092312601	07-09-97	1149	do.	<4.90	<1.23	<.032	<.036	<.044	E.020	<.100
10	414912093284201	07-15-97	0849	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
11	414958090230301	06-12-97	1004	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
12	415527092190301	07-17-97	0849	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
13	420117092505601	07-09-97	0849	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
14	421115091250501	07-24-97	0909	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
15	421705092142501	07-22-97	1249	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
16	422518092144701	07-22-97	0929	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
17	422629092345001	07-23-97	1159	do.	<4.90	<1.23	E.010	<.036	<.044	<.048	<.100
18	423419093172401	07-08-97	0949	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
19	423557091560501	08-27-97	0919	do.	<19.6	<4.90	<.128	<.144	<.176	<.192	<.400
20	423639092350901	06-17-97	1429	blank	6.96	<1.23	E.090	<.036	<.044	<.048	<.100
			1449	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
21	424203092551301	07-31-97	1229	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
22	424548092101701	08-26-97	0909	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
23	425401093135201	07-31-97	0829	blank	E2.00	<1.23	<.032	<.036	<.044	<.048	<.100
			0849	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
24	425756092162401	08-21-97	1209	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
25	430159093403201	07-29-97	0929	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100



**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Acetone (81552)	Acrylonitrile (34215)	Benzene (34030)	Bromo- benzene (81555)	Bromo- chloro- methane (77297)	Bromo- dichloro- methane (32101)	Bromoethene (50002)
<b>Agricultural land-use wells—Continued</b>											
26	430525093023501	07-30-97	1319	regular	<4.90	<1.23	<0.032	<0.036	<0.044	<0.048	<0.100
27	431222093313301	07-29-97	1249	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
28	431339093155901	07-30-97	0919	blank	E10.0	<1.23	<.032	<.036	<.044	<.048	<.100
			0929	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
29	432946093161901	08-18-97	1349	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
30	433815093000001	08-04-97	1239	do.	E2.00	<1.23	E.020	<.036	<.044	<.048	<.100
31	435221093001901	08-05-97	0929	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
<b>Urban land-use wells</b>											
32	412855091421601	07-10-97	0839	regular	<4.90	<1.23	E.080	<.036	<.044	<.048	<.100
33	413414091095501	06-25-97	1109	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
34	413823091322301	06-09-97	1149	do.	<4.90	<1.23	<.032	<.036	<.044	E.020	<.100
35	413933091304701	06-05-97	0934	do.	<5.00	<2.00	E.010	<.050	<.100	<.100	<.100
36	414435090465101	06-23-97	0954	do.	<4.90	<1.23	<.032	<.036	<.044	E.020	<.100
			0959	replicate	<4.90	<1.23	E.009	<.036	<.044	E.010	<.100
37	415825091405601	07-17-97	1229	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
38	415827091392401	06-30-97	0929	do.	<4.90	<1.23	E.010	<.036	<.044	<.048	<.100
39	415850090572201	06-11-97	1329	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
40	420219093361301	07-15-97	1139	blank	E5.00	<1.23	E.050	<.036	<.044	E.070	<.100
			1159	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
41	420240092535001	07-16-97	0859	do.	E1.00	<1.23	.131	<.036	<.044	<.048	<.100
42	420347092541601	07-16-97	1209	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
			1214	replicate	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
43	420936092005701	07-21-97	1219	regular	<4.90	<1.23	E.050	<.036	<.044	<.048	<.100
44	421012092020101	07-21-97	0939	do.	E20.0	<1.23	E230	<.036	<.044	<.048	<.100
45	422426092272401	06-19-97	0939	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
46	422754092375301	07-23-97	0859	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
47	422913092192501	06-18-97	0919	do.	<4.90	<1.23	E.030	<.036	<.044	<.048	<.100
48	422918092183901	06-18-97	1254	do.	E2.00	<1.23	E.040	<.036	<.044	<.048	<.100

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Acetone (81552)	Acrylonitrile (34215)	Benzene (34030)	Bromo- benzene (81555)	Bromo- chloro- methane (77297)	Bromo- dichloro- methane (32101)	Bromoethene (50002)
Urban land-use wells—Continued											
49	423018092200901	08-26-97	1309	regular	<4.90	<1.23	<0.032	<0.036	<0.044	E0.020	<0.100
50	423459092523701	07-28-97	1049	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
51	423459092530501	07-28-97	1339	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
52	423930093294901	07-08-97	1439	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
53	424034091553401	08-27-97	1639	do.	<4.90	<1.23	<.032	<.036	<.044	.611	<.100
54	424322092283901	06-17-97	0934	do.	<4.90	<1.23	171	<.036	<.044	<.048	<.100
55	430414092405801	08-21-97	0829	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
56	430442092402201	08-19-97	0929	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
			0940	spike	E1.00	<1.23	E.040	<.036	<.044	2.56	<.100
57	431438092262201	08-20-97	0859	regular	<4.90	<1.23	<.032	<.036	<.044	E.090	<.100
58	433855093222401	08-06-97	1129	do.	<9.81	<2.45	<.064	<.072	<.088	<.096	<.200
59	433944092583501	08-05-97	1139	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
60	434003092575401	08-06-97	0829	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
61	434023093214201	08-07-97	0859	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
			0904	replicate	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Bromoform (32104)	Bromo- methane (34413)	Butyl- benzene (77342)	Carbon disulfide (77041)	Chloro- benzene (34301)	Chloro- ethane (34311)	Chloroform (32106)	Chloro- methane (34418)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.104	<0.148	<0.186	E0.040	<0.028	<0.120	<0.052	<0.254
2	405601091551901	07-10-97	1209	do.	<.104	<.148	<.186	E.100	<.028	<.120	E.030	<.254
3	411511091155101	06-24-97	0859	do.	<.104	<.148	<.186	E.070	<.028	<.120	<.052	<.254
4	411843092105101	07-14-97	1029	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.010	<.254
5	412755091114101	06-25-97	0829	do.	<.104	<.148	<.186	.769	<.028	<.120	<.052	<.254
6	412927092575201	07-14-97	1429	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.010	<.254
7	413248092011301	07-07-97	1049	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
8	413540091341201	06-10-97	1214	do.	<.104	<.148	<.186	E.010	<.028	<.120	<.052	<.254
9	414208092312601	07-09-97	1149	do.	<.104	<.148	<.186	E.040	<.028	<.120	E.070	<.254
10	414912093284201	07-15-97	0849	do.	<.104	<.148	<.186	E.050	<.028	<.120	<.052	E.010
11	414958090230301	06-12-97	1004	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.006	<.254
12	415527092190301	07-17-97	0849	do.	<.104	<.148	<.186	E.030	<.028	<.120	<.052	<.254
13	420117092505601	07-09-97	0849	do.	<.104	<.148	<.186	E.050	<.028	<.120	<.052	<.254
14	421115091250501	07-24-97	0909	do.	<.104	<.148	<.186	E.030	<.028	<.120	<.052	E.030
15	421705092142501	07-22-97	1249	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.010	E.070
16	422518092144701	07-22-97	0929	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.060	E.060
17	422629092345001	07-23-97	1159	do.	<.104	<.148	<.186	E.030	<.028	<.120	<.052	E.080
18	423419093172401	07-08-97	0949	do.	<.104	<.148	<.186	E.070	<.028	<.120	<.052	<.254
19	423557091560501	08-27-97	0919	do.	<.416	<.592	<.744	<.320	<.112	<.480	<.208	<1.02
20	423639092350901	06-17-97	1429	blank	<.104	<.148	<.186	.460	<.028	<.120	<.052	<.254
			1449	regular	<.104	<.148	<.186	E.020	<.028	<.120	<.052	<.254
21	424203092551301	07-31-97	1229	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.050
22	424548092101701	08-26-97	0909	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
23	425401093135201	07-31-97	0829	blank	<.104	<.148	<.186	E.020	<.028	<.120	E.020	<.254
			0849	regular	<.104	<.148	<.186	E.010	<.028	<.120	<.052	<.254
24	425756092162401	08-21-97	1209	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.030
25	430159093403201	07-29-97	0929	do.	<.104	<.148	<.186	E.030	<.028	<.120	<.052	<.254

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Bromoform (32104)	Bromo- methane (34413)	Butyl- benzene (77342)	Carbon disulfide (77041)	Chloro- benzene (34301)	Chloro- ethane (34311)	Chloroform (32106)	Chloro- methane (34418)
Agricultural land-use wells—Continued												
26	430525093023501	07-30-97	1319	regular	<0.104	<0.148	<0.186	<0.080	<0.028	<0.120	E0.040	E0.050
27	431222093313301	07-29-97	1249	do.	<.104	<.148	<.186	E.030	<.028	<.120	<.052	E.060
28	431339093155901	07-30-97	0919	blank	<.104	<.148	<.186	<.080	<.028	<.120	E.020	E.060
			0929	regular	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.050
29	432946093161901	08-18-97	1349	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.050
30	433815093000001	08-04-97	1239	do.	<.104	<.148	<.186	.203	<.028	<.120	<.052	E.060
31	435221093001901	08-05-97	0929	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.060
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	<.104	<.148	<.186	E.050	E.020	<.120	<.052	<.254
33	413414091095501	06-25-97	1109	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.010	<.254
34	413823091322301	06-09-97	1149	do.	<.104	<.148	<.186	E.020	<.028	<.120	E.070	<.254
35	413933091304701	06-05-97	0934	do.	<.200	<.100	<.050	E.020	<.050	<.100	<.050	<.200
36	414435090465101	06-23-97	0954	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.040	<.254
			0959	replicate	<.104	<.148	<.186	<.080	<.028	<.120	E.040	<.254
37	415825091405601	07-17-97	1229	regular	<.104	<.148	<.186	.128	<.028	<.120	<.052	<.254
38	415827091392401	06-30-97	0929	do.	<.104	<.148	<.186	E.060	<.028	<.120	E.020	<.254
39	415850090572201	06-11-97	1329	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.030	<.254
40	420219093361301	07-15-97	1139	blank	<.104	<.148	<.186	E.040	<.028	<.120	.344	E.010
			1159	regular	<.104	<.148	<.186	E.030	<.028	<.120	E.005	<.254
41	420240092535001	07-16-97	0859	do.	<.104	<.148	<.186	E.020	<.028	E.050	<.052	E.040
42	420347092541601	07-16-97	1209	do.	<.104	<.148	<.186	<.080	<.028	<.120	.150	<.254
			1214	replicate	<.104	<.148	<.186	<.080	<.028	<.120	.152	<.254
43	420936092005701	07-21-97	1219	regular	<.104	<.148	<.186	.168	<.028	<.120	E.020	E.100
44	421012092020101	07-21-97	0939	do.	<.104	E.040	<.186	<.080	<.028	E1.00	<.052	E.400
45	422426092272401	06-19-97	0939	do.	<.104	<.148	<.186	E.070	<.028	<.120	E.005	<.254
46	422754092375301	07-23-97	0859	do.	<.104	<.148	<.186	<.080	<.028	<.120	E.080	E.080
47	422913092192501	06-18-97	0919	do.	<.104	<.148	<.186	E.070	<.028	<.120	<.052	<.254
48	422918092183901	06-18-97	1254	do.	<.104	<.148	<.186	E.080	<.028	<.120	E.010	<.254

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Bromoform (32104)	Bromo- methane (34413)	Butyl- benzene (77342)	Carbon disulfide (77041)	Chloro- benzene (34301)	Chloro- ethane (34311)	Chloroform (32106)	Chloro- methane (34418)
Urban land-use wells—Continued												
49	423018092200901	08-26-97	1309	regular	<0.104	<0.148	<0.186	<0.080	<0.028	<0.120	0.115	<0.254
50	423459092523701	07-28-97	1049	do.	<.104	<.148	<.186	E.010	<.028	<.120	<.052	E.050
51	423459092530501	07-28-97	1339	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
52	423930093294901	07-08-97	1439	do.	<.104	<.148	<.186	E.020	<.028	<.120	<.052	<.254
53	424034091553401	08-27-97	1639	do.	<.104	<.148	<.186	<.080	<.028	<.120	15.8	<.254
54	424322092283901	06-17-97	0934	do.	<.104	<.148	.555	E.050	<.028	<.120	<.052	<.254
55	430414092405801	08-21-97	0829	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.030
56	430442092402201	08-19-97	0929	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	E.060
			0940	spike	2.10	<.148	<.186	E.010	<.028	<.120	<.052	E.060
57	431438092262201	08-20-97	0859	regular	<.104	<.148	<.186	<.080	<.028	<.120	.550	E.070
58	433855093222401	08-06-97	1129	do.	<.208	<.296	<.372	E.070	<.056	<.240	<.104	<.508
59	433944092583501	08-05-97	1139	do.	<.104	<.148	<.186	E.030	<.028	<.120	E.010	E.030
60	434003092575401	08-06-97	0829	do.	<.104	<.148	<.186	E.060	<.028	<.120	<.052	<.254
61	434023093214201	08-07-97	0859	do.	<.104	<.148	<.186	E.060	<.028	<.120	<.052	E.090
			0904	replicate	<.104	<.148	<.186	.205	<.028	<.120	<.052	E.070

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Dibromo-chloro-methane (32105)	Dibromo-methane (30217)	Dichloro-difluoro-methane (34668)	Dichloro-methane (34423)	Diethyl ether (81576)	Diisopropyl ether (81577)	Ethyl meth-acrylate (73570)	Ethyl tert-butyl ether (50004)	Ethyl-benzene (34371)
Agricultural land-use wells													
1	405405091335001	07-02-97	0959	regular	<0.182	<0.05	<0.096	<0.382	<0.170	<0.098	<0.278	<0.054	<0.03
2	405601091551901	07-10-97	1209	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	E.01
3	411511091155101	06-24-97	0859	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
4	411843092105101	07-14-97	1029	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
5	412755091114101	06-25-97	0829	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
6	412927092575201	07-14-97	1429	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
7	413248092011301	07-07-97	1049	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
8	413540091341201	06-10-97	1214	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
9	414208092312601	07-09-97	1149	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
10	414912093284201	07-15-97	0849	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
11	414958090230301	06-12-97	1004	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
12	415527092190301	07-17-97	0849	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
13	420117092505601	07-09-97	0849	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
14	421115091250501	07-24-97	0909	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
15	421705092142501	07-22-97	1249	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
16	422518092144701	07-22-97	0929	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
17	422629092345001	07-23-97	1159	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
18	423419093172401	07-08-97	0949	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
19	423557091560501	08-27-97	0919	do.	<.728	<.20	<.384	<1.53	<.680	<.392	<1.11	<.216	<.12
20	423639092350901	06-17-97	1429	blank	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	E.05
			1449	regular	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
21	424203092551301	07-31-97	1229	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
22	424548092101701	08-26-97	0909	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
23	425401093135201	07-31-97	0829	blank	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			0849	regular	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
24	425756092162401	08-21-97	1209	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
25	430159093403201	07-29-97	0929	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Dibromo-chloro-methane (32105)	Dibromo-methane (30217)	Dichloro-difluoro-methane (34668)	Dichloro-methane (34423)	Diethyl ether (81576)	Diisopropyl ether (81577)	Ethyl meth-acrylate (73570)	Ethyl tert-butyl ether (50004)	Ethyl-benzene (34371)
Agricultural land-use wells—Continued													
26	430525093023501	07-30-97	1319	regular	<0.182	<0.05	<0.096	<0.382	<0.170	<0.098	<0.278	<0.054	<0.03
27	431222093313301	07-29-97	1249	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
28	431339093155901	07-30-97	0919	blank	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			0929	regular	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
29	432946093161901	08-18-97	1349	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
30	433815093000001	08-04-97	1239	do.	<.182	<.05	<.096	25.8	<.170	<.098	<.278	<.054	<.03
31	435221093001901	08-05-97	0929	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
Urban land-use wells													
32	412855091421601	07-10-97	0839	regular	<.182	<.05	<.096	<.382	<.170	E.040	<.278	<.054	<.03
33	413414091095501	06-25-97	1109	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
34	413823091322301	06-09-97	1149	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
35	413933091304701	06-05-97	0934	do.	<.100	<.10	<.200	<.100	<.100	<.100	<1.00	<.100	<.05
36	414435090465101	06-23-97	0954	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			0959	replicate	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
37	415825091405601	07-17-97	1229	regular	<.182	<.05	<.096	<.382	<.170	1.05	<.278	.188	<.03
38	415827091392401	06-30-97	0929	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
39	415850090572201	06-11-97	1329	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
40	420219093361301	07-15-97	1139	blank	E.010	<.05	<.096	<.382	<.170	<.098	<.278	<.054	E.02
			1159	regular	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
41	420240092535001	07-16-97	0859	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
42	420347092541601	07-16-97	1209	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			1214	replicate	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
43	420936092005701	07-21-97	1219	regular	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
44	421012092020101	07-21-97	0939	do.	<.182	<.05	<.096	<.382	E.080	2.50	<.278	<.054	3.58
45	422426092272401	06-19-97	0939	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
46	422754092375301	07-23-97	0859	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
47	422913092192501	06-18-97	0919	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Dibromo-chloro-methane (32105)	Dibromo-methane (30217)	Dichloro-difluoro-methane (34668)	Dichloro-methane (34423)	Diethyl ether (81576)	Diisopropyl ether (81577)	Ethyl meth-acrylate (73570)	Ethyl tert-butyl ether (50004)	Ethyl-benzene (34371)
Urban land-use wells—Continued													
48	422918092183901	06-18-97	1254	regular	<0.182	<0.05	<0.096	<0.382	<0.170	<0.098	<0.278	<0.054	E0.02
49	423018092200901	08-26-97	1309	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
50	423459092523701	07-28-97	1049	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
51	423459092530501	07-28-97	1339	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
52	423930093294901	07-08-97	1439	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
53	424034091553401	08-27-97	1639	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	E.01
54	424322092283901	06-17-97	0934	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	E.08
55	430414092405801	08-21-97	0829	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
56	430442092402201	08-19-97	0929	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			0940	spike	2.29	<.05	<.096	<.382	<.170	<.098	<.278	<.054	2.43
57	431438092262201	08-20-97	0859	regular	<.182	<.05	E.030	<.382	<.170	<.098	<.278	<.054	<.03
58	433855093222401	08-06-97	1129	do.	<.364	<.10	<.192	<.764	E.060	<.196	<.556	<.108	<.06
59	433944092583501	08-05-97	1139	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
60	434003092575401	08-06-97	0829	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
61	434023093214201	08-07-97	0859	do.	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03
			0904	replicate	<.182	<.05	<.096	<.382	<.170	<.098	<.278	<.054	<.03



**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Hexachloro- butadiene (39702)	Hexachloro- ethane (34396)	Isopropyl- benzene (77223)	Methyl acrylate (49991)	Methyl acryl- onitrile (81593)	Methyl iodide (77424)	Methyl meth- acrylate (81597)	Naphthalene (34696)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.142	<0.362	<0.032	<0.612	<0.57	<0.076	<0.35	<0.25
2	405601091551901	07-10-97	1209	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
3	411511091155101	06-24-97	0859	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
4	411843092105101	07-14-97	1029	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
5	412755091114101	06-25-97	0829	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
6	412927092575201	07-14-97	1429	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
7	413248092011301	07-07-97	1049	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
8	413540091341201	06-10-97	1214	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
9	414208092312601	07-09-97	1149	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
10	414912093284201	07-15-97	0849	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
11	414958090230301	06-12-97	1004	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
12	415527092190301	07-17-97	0849	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
13	420117092505601	07-09-97	0849	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
14	421115091250501	07-24-97	0909	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
15	421705092142501	07-22-97	1249	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
16	422518092144701	07-22-97	0929	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
17	422629092345001	07-23-97	1159	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
18	423419093172401	07-08-97	0949	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
19	423557091560501	08-27-97	0919	do.	<.568	<1.45	<.128	<2.45	<2.28	<.304	<1.40	<1.00
20	423639092350901	06-17-97	1429	blank	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			1449	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
21	424203092551301	07-31-97	1229	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
22	424548092101701	08-26-97	0909	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
23	425401093135201	07-31-97	0829	blank	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			0849	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
24	425756092162401	08-21-97	1209	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
25	430159093403201	07-29-97	0929	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Hexachloro-butadiene (39702)	Hexachloro-ethane (34396)	Isopropyl-benzene (77223)	Methyl acrylate (49991)	Methyl acryl-onitrile (81593)	Methyl iodide (77424)	Methyl meth-acrylate (81597)	Naphthalene (34696)
Agricultural land-use wells—Continued												
26	430525093023501	07-30-97	1319	regular	<0.142	<0.362	<0.032	<0.612	<0.57	<0.076	<0.35	<0.25
27	431222093313301	07-29-97	1249	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
28	431339093155901	07-30-97	0919	blank	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			0929	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
29	432946093161901	08-18-97	1349	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
30	433815093000001	08-04-97	1239	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
31	435221093001901	08-05-97	0929	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
33	413414091095501	06-25-97	1109	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
34	413823091322301	06-09-97	1149	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
35	413933091304701	06-05-97	0934	do.	<.200	<.050	<.050	<2.00	<2.00	<.050	<1.00	<.200
36	414435090465101	06-23-97	0954	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			0959	replicate	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
37	415825091405601	07-17-97	1229	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
38	415827091392401	06-30-97	0929	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
39	415850090572201	06-11-97	1329	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
40	420219093361301	07-15-97	1139	blank	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			1159	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
41	420240092535001	07-16-97	0859	do.	<.142	<.362	<.032	<.612	<.57	.171	<.35	<.25
42	420347092541601	07-16-97	1209	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			1214	replicate	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
43	420936092005701	07-21-97	1219	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
44	421012092020101	07-21-97	0939	do.	<.142	<.362	.371	<.612	<90.0	E.600	<.35	E.100
45	422426092272401	06-19-97	0939	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
46	422754092375301	07-23-97	0859	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
47	422913092192501	06-18-97	0919	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
48	422918092183901	06-18-97	1254	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Hexachloro- butadiene (39702)	Hexachloro- ethane (34396)	Isopropyl- benzene (77223)	Methyl acrylate (49991)	Methyl acryl- onitrile (81593)	Methyl iodide (77424)	Methyl meth- acrylate (81597)	Naphthalene (34696)
Urban land-use wells—Continued												
49	423018092200901	08-26-97	1309	regular	<0.142	<0.362	<0.032	<0.612	<0.57	<0.076	<0.35	<0.25
50	423459092523701	07-28-97	1049	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
51	423459092530501	07-28-97	1339	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
52	423930093294901	07-08-97	1439	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
53	424034091553401	08-27-97	1639	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
54	424322092283901	06-17-97	0934	do.	<.142	<.362	<.032	<.612	<500	<.076	<.35	<.25
55	430414092405801	08-21-97	0829	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
56	430442092402201	08-19-97	0929	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			0940	spike	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
57	431438092262201	08-20-97	0859	regular	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
58	433855093222401	08-06-97	1129	do.	<.284	<.724	<.064	<1.22	<1.14	<.152	<.70	<.500
59	433944092583501	08-05-97	1139	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
60	434003092575401	08-06-97	0829	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
61	434023093214201	08-07-97	0859	do.	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25
			0904	replicate	<.142	<.362	<.032	<.612	<.57	<.076	<.35	<.25

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Styrene (77128)	Tetra- chloro- ethylene (34475)	Tetrachloro- methane (32102)	Tetra- hydrofuran (81607)	Toluene (34010)	Toluene-d8 surrogate (% recovery) (99833)	Trichloro- ethylene (39180)	Trichloro- fluoro- methane (34488)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.042	E0.040	<0.088	<1.15	E0.080	91.0	<0.038	<0.092
2	405601091551901	07-10-97	1209	do.	<.042	E.040	<.088	<1.15	.214	98.0	<.038	<.092
3	411511091155101	06-24-97	0859	do.	<.042	E.010	<.088	<1.15	E.060	99.0	<.038	<.092
4	411843092105101	07-14-97	1029	do.	<.042	E.030	<.088	<1.15	E.100	97.0	<.038	<.092
5	412755091114101	06-25-97	0829	do.	<.042	E.030	<.088	<1.15	E.100	97.0	<.038	<.092
6	412927092575201	07-14-97	1429	do.	<.042	E.020	<.088	<1.15	E.060	100	<.038	<.092
7	413248092011301	07-07-97	1049	do.	<.042	E.020	<.088	<1.15	E.070	100	<.038	<.092
8	413540091341201	06-10-97	1214	do.	<.042	E.008	<.088	<1.15	E.060	96.0	<.038	<.092
9	414208092312601	07-09-97	1149	do.	<.042	E.030	<.088	<1.15	.208	99.0	<.038	<.092
10	414912093284201	07-15-97	0849	do.	<.042	E.020	<.088	<1.15	E.050	90.0	<.038	<.092
11	414958090230301	06-12-97	1004	do.	<.042	E.009	<.088	<1.15	E.050	95.0	<.038	<.092
12	415527092190301	07-17-97	0849	do.	<.042	E.010	<.088	<1.15	E.070	100	<.038	<.092
13	420117092505601	07-09-97	0849	do.	<.042	E.040	<.088	<1.15	.116	101	<.038	<.092
14	421115091250501	07-24-97	0909	do.	<.042	<.038	<.088	<1.15	<.041	98.0	<.038	<.092
15	421705092142501	07-22-97	1249	do.	<.042	<.038	<.088	<1.15	E.020	99.0	<.038	<.092
16	422518092144701	07-22-97	0929	do.	<.042	<.038	<.088	<1.15	E.040	98.0	<.038	<.092
17	422629092345001	07-23-97	1159	do.	<.042	<.038	<.088	<1.15	<.038	100	<.038	<.092
18	423419093172401	07-08-97	0949	do.	<.042	E.020	<.088	<1.15	.105	98.0	<.038	<.092
19	423557091560501	08-27-97	0919	do.	<.168	<.152	<.352	<4.59	<.152	101	<.152	<.368
20	423639092350901	06-17-97	1429	blank	E.020	E.070	<.088	E1.00	.638	100	E.007	<.092
			1449	regular	<.042	E.020	<.088	<1.15	E.100	101	<.038	<.092
21	424203092551301	07-31-97	1229	do.	<.042	E.010	<.088	<1.15	E.040	102	<.038	<.092
22	424548092101701	08-26-97	0909	do.	<.042	<.038	<.088	<1.15	E.039	99.0	<.038	<.092
23	425401093135201	07-31-97	0829	blank	<.042	<.038	<.088	<1.15	E.040	99.0	<.038	<.092
			0849	regular	<.042	<.038	<.088	<1.15	<.038	98.0	<.038	<.092
24	425756092162401	08-21-97	1209	do.	<.042	<.038	<.088	<1.15	E.030	99.0	<.038	<.092
25	430159093403201	07-29-97	0929	do.	<.042	E.008	<.088	<1.15	E.070	103	<.038	<.092

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Styrene (77128)	Tetra- chloro- ethylene (34475)	Tetrachloro- methane (32102)	Tetra- hydrofuran (81607)	Toluene (34010)	Toluene-d8 surrogate (% recovery) (99833)	Trichloro- ethylene (39180)	Trichloro- fluoro- methane (34488)
Agricultural land-use wells—Continued												
26	430525093023501	07-30-97	1319	regular	<0.042	<0.038	<0.088	<1.15	<0.038	100	<0.038	<0.092
27	431222093313301	07-29-97	1249	do.	<.042	<.038	<.088	<1.15	<.038	97.0	<.038	<.092
28	431339093155901	07-30-97	0919	blank	<.042	E.005	<.088	<1.15	<.038	99.0	<.038	<.092
			0929	regular	<.042	<.038	<.088	<1.15	<.038	100	<.038	<.092
29	432946093161901	08-18-97	1349	do.	<.042	<.038	<.088	<1.15	E.030	98.0	<.038	<.092
30	433815093000001	08-04-97	1239	do.	<.042	E.010	<.088	<1.15	.129	100	<.038	<.092
31	435221093001901	08-05-97	0929	do.	<.042	<.038	<.088	<1.15	E.030	101	<.038	<.092
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	<.042	E.060	<.088	<1.15	.182	98.0	.469	<.092
33	413414091095501	06-25-97	1109	do.	<.042	E.080	<.088	<1.15	E.080	102	<.038	<.092
34	413823091322301	06-09-97	1149	do.	<.042	E.010	<.088	<1.15	E.070	98.0	<.038	<.092
35	413933091304701	06-05-97	0934	do.	<.050	E.008	<.050	<5.00	<.050	96.0	<.050	<.100
36	414435090465101	06-23-97	0954	do.	<.042	E.009	<.088	<1.15	E.030	98.0	<.038	<.092
			0959	replicate	<.042	E.020	<.088	<1.15	E.080	103	<.038	<.092
37	415825091405601	07-17-97	1229	regular	<.042	E.020	<.088	<1.15	.143	102	<.038	<.092
38	415827091392401	06-30-97	0929	do.	<.042	E.070	<.088	<1.15	E.100	103	<.038	<.092
39	415850090572201	06-11-97	1329	do.	<.042	E.010	<.088	<1.15	E.080	97.0	<.038	<.092
40	420219093361301	07-15-97	1139	blank	<.042	E.020	<.088	E.800	.809	96.0	<.038	<.092
			1159	regular	<.042	E.020	<.088	<1.15	<.043	89.0	<.038	<.092
41	420240092535001	07-16-97	0859	do.	<.042	E.020	<.088	<1.15	E.070	97.0	.731	<.092
42	420347092541601	07-16-97	1209	do.	<.042	E.010	<.088	<1.15	E.060	97.0	<.038	<.092
			1214	replicate	<.042	E.020	<.088	<1.15	E.060	100	<.038	<.092
43	420936092005701	07-21-97	1219	regular	<.042	E.010	<.088	<1.15	E.100	88.0	<.038	<.092
44	421012092020101	07-21-97	0939	do.	<.042	<.038	<.088	<1.15	2.09	99.0	<.038	<.092
45	422426092272401	06-19-97	0939	do.	<.042	E.010	<.088	<1.15	E.050	95.0	<.038	<.092
46	422754092375301	07-23-97	0859	do.	<.042	E.010	<.088	<1.15	E.060	96.0	<.038	<.092
47	422913092192501	06-18-97	0919	do.	<.042	2.78	<.088	<1.15	<.038	100	.946	<.092
48	422918092183901	06-18-97	1254	do.	<.042	E.030	<.088	<1.15	E.060	96.0	<.038	<.092

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Styrene (77128)	Tetra- chloro- ethylene (34475)	Tetrachloro- methane (32102)	Tetra- hydrofuran (81607)	Toluene (34010)	Toluene-d8 surrogate (% recovery) (99833)	Trichloro- ethylene (39180)	Trichloro- fluoro- methane (34488)
Urban land-use wells—Continued												
49	423018092200901	08-26-97	1309	regular	<0.042	E0.020	<0.088	<1.15	E0.060	98.0	E0.030	<0.092
50	423459092523701	07-28-97	1049	do.	<.042	E.003	<.088	<1.15	<.038	102	<.038	<.092
51	423459092530501	07-28-97	1339	do.	<.042	E.010	<.088	<1.15	E.090	100	<.038	<.092
52	423930093294901	07-08-97	1439	do.	<.042	E.010	<.088	<1.15	E.070	99.0	<.038	<.092
53	424034091553401	08-27-97	1639	do.	<.042	E.030	<.088	<1.15	.245	99.0	<.038	<.092
54	424322092283901	06-17-97	0934	do.	<.042	E.020	<.088	<12.0	12.1	102	<.038	<.092
55	430414092405801	08-21-97	0829	do.	<.042	<.038	<.088	<1.15	E.030	99.0	<.038	<.092
56	430442092402201	08-19-97	0929	do.	<.042	<.038	<.088	<1.15	E.030	99.0	<.038	<.092
			0940	spike	<.042	2.33	2.46	<1.15	E.050	102	2.46	<.092
57	431438092262201	08-20-97	0859	regular	<.042	.101	<.088	<1.15	E.050	98.0	<.038	<.092
58	433855093222401	08-06-97	1129	do.	<.084	<.076	<.176	<2.30	E.100	101	<.076	<.184
59	433944092583501	08-05-97	1139	do.	<.042	E.005	<.088	<1.15	E.010	101	<.038	<.092
60	434003092575401	08-06-97	0829	do.	<.042	<.038	<.088	<1.15	E.030	99.0	.189	<.092
61	434023093214201	08-07-97	0859	do.	<.042	<.038	<.088	<1.15	E.030	102	<.038	<.092
			0904	replicate	<.042	<.038	<.088	<1.15	<.038	102	<.038	<.092

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Vinyl chloride (39175)	cis-1,2- Dichloro- ethylene (77093)	cis-1,3- Dichloro- propene (34704)	m- and p- Xylene (85795)	n-Propyl- benzene (77224)	o-Ethyl toluene (77220)	o-Xylene (77135)	sec-Butyl- benzene (77350)
Agricultural land-use wells												
1	405405091335001	07-02-97	0959	regular	<0.112	<0.038	<0.092	<0.064	<0.042	<0.100	<0.064	<0.048
2	405601091551901	07-10-97	1209	do.	<.112	<.038	<.092	E.010	<.042	<.100	<.064	<.048
3	411511091155101	06-24-97	0859	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
4	411843092105101	07-14-97	1029	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
5	412755091114101	06-25-97	0829	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
6	412927092575201	07-14-97	1429	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
7	413248092011301	07-07-97	1049	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
8	413540091341201	06-10-97	1214	do.	<.112	<.038	<.092	<.064	<.042	<.100	E.003	<.048
9	414208092312601	07-09-97	1149	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
10	414912093284201	07-15-97	0849	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
11	414958090230301	06-12-97	1004	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
12	415527092190301	07-17-97	0849	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
13	420117092505601	07-09-97	0849	do.	<.112	<.038	<.092	E.010	<.042	<.100	<.064	<.048
14	421115091250501	07-24-97	0909	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
15	421705092142501	07-22-97	1249	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
16	422518092144701	07-22-97	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
17	422629092345001	07-23-97	1159	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
18	423419093172401	07-08-97	0949	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
19	423557091560501	08-27-97	0919	do.	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
20	423639092350901	06-17-97	1429	blank	<.112	<.038	<.092	E.100	E.040	E.010	<.064	<.048
			1449	regular	<.112	<.038	<.092	<.064	E.005	<.100	<.064	<.048
21	424203092551301	07-31-97	1229	do.	<.112	<.038	<.092	E.007	<.042	<.100	<.064	<.048
22	424548092101701	08-26-97	0909	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
23	425401093135201	07-31-97	0829	blank	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0849	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
24	425756092162401	08-21-97	1209	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
25	430159093403201	07-29-97	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Vinyl chloride (39175)	cis-1,2- Dichloro- ethylene (77093)	cis-1,3- Dichloro- propene (34704)	m- and p- Xylene (85795)	n-Propyl- benzene (77224)	o-Ethyl toluene (77220)	o-Xylene (77135)	sec-Butyl- benzene (77350)
Agricultural land-use wells—Continued												
26	430525093023501	07-30-97	1319	regular	<0.112	<0.038	<0.092	<0.064	<0.042	<0.100	<0.064	<0.048
27	431222093313301	07-29-97	1249	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
28	431339093155901	07-30-97	0919	blank	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0929	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
29	432946093161901	08-18-97	1349	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
30	433815093000001	08-04-97	1239	do.	<.112	E.010	<.092	<.064	<.042	<.100	<.064	<.048
31	435221093001901	08-05-97	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
Urban land-use wells												
32	412855091421601	07-10-97	0839	regular	.280	.877	<.092	E.010	<.042	<.100	<.064	<.048
33	413414091095501	06-25-97	1109	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
34	413823091322301	06-09-97	1149	do.	<.112	<.038	<.092	E.005	<.042	<.100	<.064	<.048
35	413933091304701	06-05-97	0934	do.	<.100	<.050	<.100	<.050	<.050	<.050	<.050	<.050
36	414435090465101	06-23-97	0954	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0959	replicate	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
37	415825091405601	07-17-97	1229	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
38	415827091392401	06-30-97	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
39	415850090572201	06-11-97	1329	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
40	420219093361301	07-15-97	1139	blank	<.112	<.038	<.092	E.060	<.042	E.005	E.030	<.048
			1159	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
41	420240092535001	07-16-97	0859	do.	8.13	58.8	<.092	<.064	<.042	<.100	<.064	<.048
42	420347092541601	07-16-97	1209	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			1214	replicate	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
43	420936092005701	07-21-97	1219	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
44	421012092020101	07-21-97	0939	do.	<.112	<.038	<.092	1.63	E.040	8.38	1.67	E.080
45	422426092272401	06-19-97	0939	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
46	422754092375301	07-23-97	0859	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
47	422913092192501	06-18-97	0919	do.	<.112	.383	<.092	<.064	<.042	<.100	<.064	<.048
48	422918092183901	06-18-97	1254	do.	<.112	<.038	<.092	E.040	E.010	<.100	<.064	<.048



**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Vinyl chloride (39175)	cis-1,2- Dichloro- ethylene (77093)	cis-1,3- Dichloro- propene (34704)	m- and p- Xylene (85795)	n-Propyl- benzene (77224)	o-Ethyl toluene (77220)	o-Xylene (77135)	sec-Butyl- benzene (77350)
Urban land-use wells—Continued												
49	423018092200901	08-26-97	1309	regular	<0.112	E0.010	<0.092	<0.064	<0.042	<0.100	<0.064	<0.048
50	423459092523701	07-28-97	1049	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
51	423459092530501	07-28-97	1339	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
52	423930093294901	07-08-97	1439	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
53	424034091553401	08-27-97	1639	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
54	424322092283901	06-17-97	0934	do.	<.112	<.038	<.092	12.1	<.042	22.5	2.13	<.048
55	430414092405801	08-21-97	0829	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
56	430442092402201	08-19-97	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0940	spike	1.33	<.038	<.092	<.064	<.042	<.100	<.064	<.048
57	431438092262201	08-20-97	0859	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
58	433855093222401	08-06-97	1129	do.	<.224	<.076	<.184	<.128	<.084	<.200	<.128	<.096
59	433944092583501	08-05-97	1139	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
60	434003092575401	08-06-97	0829	do.	<.112	E.050	<.092	<.064	<.042	<.100	<.064	<.048
61	434023093214201	08-07-97	0859	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0904	replicate	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	tert-Butyl methyl ether (78032)	tert-Butyl- benzene (77353)	tert-Pentyl methyl ether (50005)	trans-1,2- Dichloro- ethylene (34546)	trans-1,3- Dichloro- propene (34699)	trans-1,4- Dichloro-2- butene (73547)
Agricultural land-use wells										
1	405405091335001	07-02-97	0959	regular	<0.112	<0.096	<0.112	<0.032	<0.134	<0.692
2	405601091551901	07-10-97	1209	do.	<.112	<.096	<.112	<.032	<.134	<.692
3	411511091155101	06-24-97	0859	do.	<.112	<.096	<.112	<.032	<.134	<.692
4	411843092105101	07-14-97	1029	do.	<.112	<.096	<.112	<.032	<.134	<.692
5	412755091114101	06-25-97	0829	do.	<.112	<.096	<.112	<.032	<.134	<.692
6	412927092575201	07-14-97	1429	do.	<.112	<.096	<.112	<.032	<.134	<.692
7	413248092011301	07-07-97	1049	do.	<.112	<.096	<.112	<.032	<.134	<.692
8	413540091341201	06-10-97	1214	do.	<.112	<.096	<.112	<.032	<.134	<.692
9	414208092312601	07-09-97	1149	do.	<.112	<.096	<.112	<.032	<.134	<.692
10	414912093284201	07-15-97	0849	do.	<.112	<.096	<.112	<.032	<.134	<.692
11	414958090230301	06-12-97	1004	do.	<.112	<.096	<.112	<.032	<.134	<.692
12	415527092190301	07-17-97	0849	do.	<.112	<.096	<.112	<.032	<.134	<.692
13	420117092505601	07-09-97	0849	do.	<.112	<.096	<.112	<.032	<.134	<.692
14	421115091250501	07-24-97	0909	do.	<.112	<.096	<.112	<.032	<.134	<.692
15	421705092142501	07-22-97	1249	do.	<.112	<.096	<.112	<.032	<.134	<.692
16	422518092144701	07-22-97	0929	do.	<.112	<.096	<.112	<.032	<.134	<.692
17	422629092345001	07-23-97	1159	do.	<.112	<.096	<.112	<.032	<.134	<.692
18	423419093172401	07-08-97	0949	do.	<.112	<.096	<.112	<.032	<.134	<.692
19	423557091560501	08-27-97	0919	do.	<.448	<.384	<.448	<.128	<.536	<2.77
20	423639092350901	06-17-97	1429	blank	<.112	<.096	<.112	<.032	<.134	<.692
			1449	regular	<.112	<.096	<.112	<.032	<.134	<.692
21	424203092551301	07-31-97	1229	do.	<.112	<.096	<.112	<.032	<.134	<.692
22	424548092101701	08-26-97	0909	do.	<.112	<.096	<.112	<.032	<.134	<.692
23	425401093135201	07-31-97	0829	blank	<.112	<.096	<.112	<.032	<.134	<.692
			0849	regular	<.112	<.096	<.112	<.032	<.134	<.692
24	425756092162401	08-21-97	1209	do.	<.112	<.096	<.112	<.032	<.134	<.692
25	430159093403201	07-29-97	0929	do.	<.112	<.096	<.112	<.032	<.134	<.692

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	tert-Butyl methyl ether (78032)	tert-Butyl- benzene (77353)	tert-Pentyl methyl ether (50005)	trans-1,2- Dichloro- ethylene (34546)	trans-1,3- Dichloro- propene (34699)	trans-1,4- Dichloro-2- butene (73547)
Agricultural land-use wells—Continued										
26	430525093023501	07-30-97	1319	regular	<0.112	<0.096	<0.112	<0.032	<0.134	<0.692
27	431222093313301	07-29-97	1249	do.	<.112	<.096	<.112	<.032	<.134	<.692
28	431339093155901	07-30-97	0919	blank	<.112	<.096	<.112	<.032	<.134	<.692
			0929	regular	<.112	<.096	<.112	<.032	<.134	<.692
29	432946093161901	08-18-97	1349	do.	<.112	<.096	<.112	<.032	<.134	<.692
30	433815093000001	08-04-97	1239	do.	<.112	<.096	<.112	<.032	<.134	<.692
31	435221093001901	08-05-97	0929	do.	<.112	<.096	<.112	<.032	<.134	<.692
Urban land-use wells										
32	412855091421601	07-10-97	0839	regular	.970	<.096	<.112	E.030	<.134	<.692
33	413414091095501	06-25-97	1109	do.	<.112	<.096	<.112	<.032	<.134	<.692
34	413823091322301	06-09-97	1149	do.	<.112	<.096	<.112	<.032	<.134	<.692
35	413933091304701	06-05-97	0934	do.	<.100	<.050	<.100	<.050	<.100	<5.00
36	414435090465101	06-23-97	0954	do.	<.112	<.096	<.112	<.032	<.134	<.692
			0959	replicate	<.112	<.096	<.112	<.032	<.134	<.692
37	415825091405601	07-17-97	1229	regular	4.32	<.096	.158	<.032	<.134	<.692
38	415827091392401	06-30-97	0929	do.	<.112	<.096	<.112	<.032	<.134	<.692
39	415850090572201	06-11-97	1329	do.	<.112	<.096	<.112	<.032	<.134	<.692
40	420219093361301	07-15-97	1139	blank	<.112	<.096	<.112	<.032	<.134	<.692
			1159	regular	<.112	<.096	<.112	<.032	<.134	<.692
41	420240092535001	07-16-97	0859	do.	.275	<.096	<.112	3.87	<.134	<.692
42	420347092541601	07-16-97	1209	do.	<.112	<.096	<.112	<.032	<.134	<.692
			1214	replicate	<.112	<.096	<.112	<.032	<.134	<.692
43	420936092005701	07-21-97	1219	regular	.258	<.096	<.112	<.032	<.134	<.692
44	421012092020101	07-21-97	0939	do.	64.6	E.020	<.112	<.032	<.134	<.692
45	422426092272401	06-19-97	0939	do.	<.112	<.096	<.112	<.032	<.134	<.692
46	422754092375301	07-23-97	0859	do.	<.112	<.096	<.112	<.032	<.134	<.692
47	422913092192501	06-18-97	0919	do.	.530	<.096	<.112	E.010	<.134	<.692
48	422918092183901	06-18-97	1254	do.	<.112	<.096	<.112	<.032	<.134	<.692

**Table 23.** Concentrations of volatile organic compounds in samples from land-use wells, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	tert-Butyl methyl ether (78032)	tert-Butyl- benzene (77353)	tert-Pentyl methyl ether (50005)	trans-1,2- Dichloro- ethylene (34546)	trans-1,3- Dichloro- propene (34699)	trans-1,4- Dichloro-2- butene (73547)
Urban land-use wells—Continued										
49	423018092200901	08-26-97	1309	regular	<0.112	<0.096	<0.112	<0.032	<0.134	<0.692
50	423459092523701	07-28-97	1049	do.	<.112	<.096	<.112	<.032	<.134	<.692
51	423459092530501	07-28-97	1339	do.	<.112	<.096	<.112	<.032	<.134	<.692
52	423930093294901	07-08-97	1439	do.	<.112	<.096	<.112	<.032	<.134	<.692
53	424034091553401	08-27-97	1639	do.	<.112	<.096	<.112	<.032	<.134	<.692
54	424322092283901	06-17-97	0934	do.	100	E.030	<.850	<.032	<30.0	<.692
55	430414092405801	08-21-97	0829	do.	<.112	<.096	<.112	<.032	<.134	<.692
56	430442092402201	08-19-97	0929	do.	<.112	<.096	<.112	<.032	<.134	<.692
			0940	spike	2.42	<.096	<.112	E.010	<.134	<.692
57	431438092262201	08-20-97	0859	regular	E.040	<.096	<.112	<.032	<.134	<.692
58	433855093222401	08-06-97	1129	do.	<.224	<.192	<.224	<.064	<.268	<1.38
59	433944092583501	08-05-97	1139	do.	<.112	<.096	<.112	<.032	<.134	<.692
60	434003092575401	08-06-97	0829	do.	<.112	<.096	<.112	<.032	<.134	<.692
61	434023093214201	08-07-97	0859	do.	<.112	<.096	<.112	<.032	<.134	<.692
			0904	replicate	<.112	<.096	<.112	<.032	<.134	<.692

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997

[ft, feet; g/kg, grams per kilogram; <, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
<b>Agricultural land-use wells</b>								
1	405405091335001	04-25-97	1000	1.5	2.0	<0.100	6.40	6.40
			1005	6.5	7.0	<.100	1.50	1.50
			1010	9.5	10	60.0	8.00	68.0
2	405601091551901	04-25-97	1300	1.5	2.0	.100	2.00	2.70
			1305	5.5	6.0	<.100	.600	.600
			1310	14	14	<.100	1.30	1.30
			1315	18	18	<.100	.900	.900
3	411511091155101	04-22-97	1000	1.5	2.0	<.100	8.80	8.80
			1005	6.5	7.0	<.100	2.50	2.50
			1010	12	12	<.100	2.20	2.20
			1015	16	16	<.100	.900	.900
4	411843092105101	04-17-97	1000	1.5	2.0	1.30	2.90	4.20
			1005	6.5	7.0	.300	1.70	2.00
			1010	16	17	<.100	.600	.600
5	412755091114101	04-22-97	1300	1.5	2.0	<.100	13.0	13.0
			1305	6.5	7.0	.100	5.60	5.70
			1310	14	15	<.100	.700	.700
6	412927092575201	04-16-97	1000	1.5	2.0	3.30	11.0	14.0
			1005	4.5	5.0	.300	2.20	2.50
			1010	16	17	<.100	.400	.400
7	413248092011301	04-17-97	1300	1.5	2.0	<.100	8.20	8.20
			1305	4.5	5.0	<.100	1.80	1.80
			1310	9.5	10	<.100	.500	.500
			1315	16	17	<.100	23.0	23.0
8	413540091341201	04-22-97	1500	1.5	2.0	<.100	10.0	10.0
			1505	6.5	7.0	<.100	1.30	1.30
			1510	12	13	7.10	2.50	9.60
9	414208092312601	05-09-97	1000	1.5	2.0	<.100	.300	.300

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Agricultural land-use wells—Continued								
9	414208092312601	05-09-97	1005	4.5	5.0	<0.100	0.600	0.600
			1010	14	15	.200	13.0	13.0
10	414912093284201	04-23-97	1000	1.5	2.0	1.20	7.70	8.90
			1005	9.5	10	5.10	3.20	8.30
			1010	18	18	6.90	7.10	14.0
			1015	20	20	8.10	3.90	12.0
11	414958090230301	04-18-97	1000	1.5	2.0	.300	4.80	5.10
			1005	3.5	4.0	<.100	1.10	1.10
			1010	8.5	9.0	21.0	4.00	25.0
			1015	22	22	9.20	1.80	11.0
12	415527092190301	04-24-97	1300	1.5	2.0	.200	14.0	14.0
			1305	10	11	.100	9.90	10.0
			1310	20	20	6.30	5.70	12.0
13	420117092505601	04-24-97	1000	1.5	2.0	1.10	19.0	20.0
			1005	5.5	6.0	2.20	2.30	4.50
			1010	20	20	.400	.600	1.00
14	421115091250501	04-29-97	1000	1.5	2.0	<.100	11.0	11.0
			1005	3.5	4.0	<.100	.800	.800
			1010	10	11	<.100	.600	.600
			1015	22	22	7.00	.500	7.50
15	421705092142501	05-06-97	1500	1.5	2.0	.500	18.0	19.0
			1505	4.5	5.0	.100	4.20	4.30
			1510	14	15	<.100	.200	.200
16	422518092144701	05-06-97	1300	1.5	2.0	.300	3.50	3.80
			1305	4.5	5.0	<.100	.500	.500
			1310	14	14	.600	.400	1.00
			1315	16	17	1.70	.400	2.10
17	422629092345001	10-28-96	1000	2.0	2.5	.100	8.70	8.70
			1005	4.5	5.0	<.100	4.10	4.10
			1010	7.5	8.0	<.100	.400	.400

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Agricultural land-use wells—Continued								
17	422629092345001	10-28-96	1015	16	16	0.100	0.200	0.200
18	423419093172401	04-15-97	1000	1.5	2.0	.300	2.60	2.90
			1005	4.5	5.0	9.10	5.90	15.0
			1010	12	12	15.0	5.00	20.0
			1000	1.5	2.0	<.100	1.40	1.40
19	423557091560501	11-12-96	1005	5.5	6.0	15.0	21.0	36.0
			1010	12	12	18.0	20.0	38.0
			1015	16	17	3.60	79.0	83.0
			1300	1.5	2.0	.500	4.60	5.10
20	423639092350901	05-05-97	1305	6.5	7.0	<.100	.600	.600
			1310	16	16	.300	.200	.500
			1300	1.5	2.0	<.100	.600	.600
21	424203092551301	04-15-97	1305	4.5	5.0	8.80	2.20	11.0
			1310	14	15	7.60	.800	8.40
			1300	1.5	2.0	<.100	25.0	25.0
22	424548092101701	11-13-96	1305	4.5	5.0	<.100	5.90	5.90
			1310	5.5	6.0	<.100	.500	.500
			1315	14	14	<.100	.500	.500
			1000	2.0	2.5	.400	3.40	3.80
23	425401093135201	11-01-96	1005	3.5	4.0	1.10	1.30	2.40
			1010	7.5	8.0	15.0	1.00	16.0
			1015	18	18	12.0	4.00	16.0
			1020	19	20	6.50	6.50	13.0
24	425756092162401	11-13-96	1000	2.0	2.5	<.100	8.40	8.40
			1005	4.5	5.0	<.100	1.00	1.00
			1010	6.5	7.0	<.100	1.00	1.00
			1015	12	12	<.100	.100	.100
			1020	12	13	<.100	5.50	5.50
			1025	16	16	<.100	.200	.200

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Agricultural land-use wells—Continued								
25	430159093403201	11-07-96	1000	2.0	2.5	0.200	7.30	7.50
			1005	5.5	6.0	24.0	2.00	26.0
			1010	9.5	10	26.0	1.00	27.0
			1015	26	27	24.0	4.00	28.0
26	430525093023501	05-05-97	1000	1.5	2.0	19.0	4.00	23.0
			1005	6.5	7.0	9.90	3.10	13.0
27	431222093313301	05-01-97	1000	1.5	2.0	.100	13.0	13.0
			1005	6.5	7.0	.900	3.20	4.10
			1010	16	16	10.0	2.00	12.0
			1015	20	20	17.0	1.00	18.0
28	431339093155901	05-01-97	1300	1.5	2.0	<.100	1.30	1.30
			1305	4.5	5.0	17.0	5.00	22.0
			1310	12	12	20.0	4.00	24.0
29	432946093161901	10-09-96	1000	1.5	2.0	.100	3.60	3.60
			1005	6.5	7.0	.100	.400	.400
			1010	10	11	21.0	3.00	24.0
			1015	20	20	19.0	5.00	24.0
30	433815093000001	07-08-97	1000	2.5	3.0	.100	13.0	13.0
			1005	12	13	1.90	1.60	3.50
			1010	14	14	3.00	1.50	4.50
31	435221093001901	07-08-97	1700	2.5	3.0	<.100	2.70	2.70
			1705	7.5	8.0	<.100	.300	.300
			1710	12	13	.500	.700	1.20
Urban land-use wells								
32	412855091421601	08-14-96	1000	2.0	2.5	.500	420	420
			1005	3.5	4.0	.100	56.0	56.0
			1010	6.5	7.0	<.100	31.0	31.0
			1015	10	11	<.100	6.40	6.40
			1020	16	16	.300	14.0	14.0
			1025	18	19	<.100	1.20	1.20



**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Urban land-use wells—Continued								
33	413414091095501	08-06-96	1000	1.5	2.0	<0.100	21.0	21.0
			1005	5.5	6.0	.100	13.0	13.0
			1010	12	12	.700	2.00	2.70
			1015	14	14	6.70	3.10	9.80
			1020	20	20	.200	.400	.600
			1025	26	27	.600	.400	1.00
34	413823091322301	08-19-96	1000	2.0	2.5	.100	11.0	11.0
			1005	3.5	4.0	.100	3.50	3.50
			1010	5.5	6.0	.100	1.40	1.40
			1015	9.5	10	.100	.400	.400
			1020	16	16	.100	.300	.300
			1025	26	26	.100	.100	.100
35	413933091304701	08-09-96	1000	1.5	2.0	.700	17.0	18.0
			1005	4.5	5.0	<.100	5.20	5.20
			1010	12	13	<.100	1.00	1.00
			1015	24	25	<.100	.500	.500
			1020	36	37	<.100	3.70	3.70
36	414435090465101	08-05-96	1000	1.5	2.0	<.100	110	110
			1005	4.5	5.0	<.100	3.60	3.60
			1010	9.5	10	7.20	8.80	16.0
			1020	27	28	4.80	1.00	5.80
37	415825091405601	08-13-96	1300	2.0	2.5	5.00	405	410
			1305	4.5	5.0	.200	48.0	48.0
			1310	8.5	9.0	.500	2.60	3.10
			1315	16	17	5.40	2.30	7.70
38	415827091392401	08-13-96	1500	2.0	2.5	<.100	6.90	6.90
			1505	4.5	5.0	.200	32.0	32.0
			1510	9.5	10	<.100	1.60	1.60
			1515	22	22	<.100	.700	.700
			1520	26	27	<.100	1.00	1.00

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Urban land-use wells—Continued								
39	415850090572201	05-12-97	1000	1.5	2.0	0.100	14.0	14.0
			1005	12	12	<.100	1.00	1.00
			1010	14	15	<.100	.300	.300
40	420219093361301	08-08-96	1000	2.0	2.5	1.40	19.0	20.0
			1005	7.0	7.5	.900	4.70	5.60
			1010	13	14	2.00	.600	2.60
41	420240092535001	08-07-96	1015	27	28	8.60	2.40	11.0
			1000	2.5	3.0	3.40	65.0	68.0
			1005	6.5	7.0	1.20	12.0	13.0
42	420347092541601	08-07-96	1010	9.5	10	.900	3.80	4.70
			1015	16	17	.100	1.40	1.40
			1020	30	30	2.30	3.90	6.20
43	420936092005701	08-15-96	1300	2.0	2.5	.100	12.0	12.0
			1305	2.5	3.0	.100	2.90	2.90
			1310	4.5	5.0	2.60	1.70	4.30
44	421012092020101	08-15-96	1315	17	18	2.00	.800	2.80
			1300	2.0	2.5	<.100	13.0	13.0
			1305	3.0	3.5	.100	3.40	3.40
45	422426092272401	11-11-96	1310	4.5	5.0	2.90	1.30	4.20
			1315	12	12	4.50	1.80	6.30
			1320	16	16	7.30	1.40	8.70
46	421012092020101	08-15-96	1000	2.0	2.5	.100	19.0	19.0
			1005	3.0	3.5	.100	4.40	4.40
			1010	5.5	6.0	.100	1.20	1.20
47	422426092272401	11-11-96	1015	16	16	<.100	.600	.600
			1000	2.5	3.0	<.100	13.0	13.0
			1005	3.5	4.0	.700	2.00	2.70
48	422426092272401	11-11-96	1010	14	15	<.100	.500	.500
			1015	24	25	.400	2.40	2.80
			1020	26	26	<.100	2.00	2.00

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Urban land-use wells—Continued								
46	422754092375301	10-31-96	1000	1.5	2.0	1.70	8.30	10.0
			1005	4.5	5.0	.100	.900	1.00
			1010	5.5	6.0	<.100	1.20	1.20
			1015	10	11	.200	1.40	1.60
			1020	14	15	.800	1.40	2.20
47	422913092192501	08-20-96	1000	3.5	4.0	5.70	18.0	24.0
			1005	6.5	7.0	2.30	8.70	11.0
			1010	14	15	2.70	7.20	9.90
			1015	20	20	2.30	6.50	8.80
			1020	24	25	2.00	1.20	3.20
48	422918092183901	08-20-96	1300	2.0	2.5	4.50	24.0	28.0
			1305	3.5	4.0	1.00	14.0	15.0
			1310	6.5	7.0	.100	1.60	1.60
			1315	9.5	10	.100	.600	.600
			1320	12	13	2.00	2.00	4.00
			1325	16	17	2.30	5.40	7.70
49	423018092200901	08-21-96	1000	2.0	2.5	.100	14.0	14.0
			1005	3.5	4.0	.100	3.50	3.50
			1010	4.5	5.0	.100	.500	.500
			1015	9.5	10	.100	.300	.300
50	423459092523701	10-07-96	1000	1.5	2.0	7.10	22.0	29.0
			1005	3.5	4.0	.300	4.30	4.60
			1010	10	11	28.0	5.00	33.0
			1015	20	20	26.0	7.00	33.0
			1020	22	22	12.0	.100	12.0
51	423459092530501	10-08-96	1000	2.5	3.0	3.70	11.0	15.0
			1005	4.5	5.0	3.30	9.70	13.0
			1010	5.5	6.0	5.90	8.10	14.0
			1015	8.5	9.0	29.0	7.00	36.0
			1020	12	12	35.0	5.00	40.0

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Urban land-use wells—Continued								
51	423459092530501	10-08-96	1025	16	17	20.0	2.00	22.0
52	423930093294901	10-31-96	1300	2.0	2.5	4.90	16.0	21.0
			1305	4.5	5.0	1.00	4.10	5.10
			1310	14	15	.100	2.20	2.20
			1315	16	17	16.0	2.00	18.0
53	424034091553401	10-10-96	1300	1.5	2.0	.600	16.0	17.0
			1305	3.5	4.0	.100	2.40	2.40
			1310	12	13	.100	.800	.800
			1315	16	17	.100	.800	.800
54	424322092283901	05-06-97	1000	1.5	2.0	<.100	1.00	1.00
			1005	3.5	4.0	<.100	3.40	3.40
			1010	14	15	<.100	.200	.200
			1015	20	21	.700	.400	1.10
55	430414092405801	09-17-96	1000	2.0	2.5	<.100	5.60	5.60
			1005	4.5	5.0	<.100	2.00	2.00
55	430414092405801	09-17-96	1010	6.5	7.0	<.100	.300	.300
			1015	18	18	53.0	3.00	56.0
56	430442092402201	09-17-96	1300	2.0	2.5	1.70	13.0	15.0
			1305	6.5	7.0	.400	2.50	2.90
57	431438092262201	05-07-97	1000	1.5	2.0	1.00	13.0	14.0
			1005	5.5	6.0	<.100	.500	.500
			1010	14	14	<.100	.400	.400
58	433855093222401	07-07-97	1300	2.5	3.0	13.0	21.0	34.0
			1305	8.5	9.0	.300	85.0	85.0
			1310	16	16	9.20	9.80	19.0
59	433944092583501	07-08-97	1300	2.5	3.0	.100	19.0	19.0
			1305	7.5	8.0	<.100	1.20	1.20
			1310	14	14	<.100	1.00	1.00
			1315	16	17	5.80	1.10	6.90

**Table 24.** Carbon concentrations in soil samples from land-use well cuttings, 1997—Continued

Map-index number (fig. 2)	Well identification	Date (month- day-year)	Time (24-hour)	Depth to top of sample interval (ft) (72015)	Depth to bottom of sample interval (ft) (72016)	Inorganic carbon (g/kg) (49270)	Organic carbon (g/kg) (49271)	Organic plus inorganic carbon (g/kg) (49272)
Urban land-use wells—Continued								
60	434003092575401	07-08-97	1500	2.5	3.0	5.40	17.0	22.0
			1505	6.5	7.0	.300	13.0	13.0
			1510	16	16	1.30	4.70	6.00
			1515	16	17	41.0	9.00	50.0
61	434023093214201	07-07-97	1000	2.5	3.0	3.70	13.0	17.0
			1005	6.5	7.0	20.0	3.00	23.0
			1010	14	14	17.0	5.00	22.0
			1015	18	18	25.0	11.0	36.0

**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97

[ft, feet; mm, millimeters; clay, less than 0.004 mm; silt, 0.004 to 0.062 mm; sand, 0.062 to 2.00 mm; gravel, greater than 2.0 mm; %, percent]

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
Agricultural land-use wells								
1	405405091335001	04-25-97	1.5	2	18.8	51.2	30.0	0
			6.5	7	20.2	39.9	39.9	0
			9.5	10	20.0	16.6	36.1	27.3
2	405601091551901	04-25-97	1.5	2	44.3	54.7	1.0	0
			5.5	6	5.6	4.1	90.3	0
			13.5	14	20.0	21	59.0	0
3	411511091155101	04-22-97	17.5	18	3.2	5.4	91.4	0
			1.5	2	8.6	8.6	81.9	0.9
			6.5	7	8.1	13.2	76.7	2.0
4	411843092105101	04-17-97	11.5	12	3.1	4	92.0	0.9
			15.5	16	2.3	2.7	92.3	2.7
			1.5	2	37.6	55.4	4.1	2.9
5	412755091114101	04-22-97	6.5	7	33.5	36.8	29.7	0
			16.5	17	23.2	11.5	65.3	0
			1.5	2	29.3	31.5	39.2	0
6	412927092575201	04-16-97	6.5	7	26.1	34.4	34.0	5.5
			14.5	15	4.5	8.4	79.6	7.5
			1.5	2	43.3	52.2	4.5	0
7	413248092011301	04-17-97	4.5	5	48.0	45.2	6.1	0.7
			16.5	17	5.9	29.2	64.9	0
			1.5	2	36.6	58.7	4.7	0
8	413540091341201	04-22-97	4.5	5	23.7	32.1	44.2	0
			9.5	10	5.5	4.6	89.7	0.2
			16.5	17	42.4	46.6	11.0	0
9	414208092312601	05-09-97	1.5	2	45.1	52.6	2.3	0
			6.5	7	29.1	68.9	2.0	0
			12.5	13	24.9	72.8	2.3	0
10	414912093284201	04-23-97	1.5	2	36.1	55.9	8.0	0
			4.5	5	.7	2.4	88.0	8.9
			14.5	15	5.4	8.0	86.3	0.3
11	414958090230301	04-18-97	1.5	2	34.8	51.4	11.5	2.3
			9.5	10	8.5	10.7	80.8	0
			17.5	18	5.7	8.8	84.9	.6
12	415527092190301	04-24-97	19.5	20	2.6	2.9	84.8	9.7
			1.5	2	40.8	54.9	4.3	0
			3.5	4	17.5	35.3	47.2	0
13	415527092190301	04-24-97	8.5	9	15.6	58.5	25.9	0
			21.5	22	5.8	23.3	68.9	2
			1.5	2	22.6	66.0	11.4	0
14	415527092190301	04-24-97	10.5	11	39.5	55.8	4.7	0
			19.5	20	22.2	34.3	31.2	12.3
			1.5	2	22.6	66.0	11.4	0

**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
<b>Agricultural land-use wells—Continued</b>								
13	420117092505601	04-24-97	1.5	2	47.5	50.1	2.4	0
			5.5	6	38.1	60.0	1.9	0
			19.5	20	8.8	24.2	64.3	2.7
14	421115091250501	04-29-97	1.5	2	32.3	56.0	11.7	0
			3.5	4	2.7	2.4	70.7	24.2
			10.5	11	2.8	3.3	61.8	32.1
			21.5	22	.4	1.3	71.9	26.4
15	421705092142501	05-06-97	1.5	2	35.0	63.0	2.0	0
			4.5	5	34.4	62.6	3.0	0
			14.5	15	5.2	11.4	80.6	2.8
16	422518092144701	05-06-97	1.5	2	18.2	17.6	28.1	36.1
			4.5	5			69.6	27.8
			13.5	14	.2	1.5	66.7	31.6
			16.5	17	0	1.5	97.9	.6
17	422629092345001	10-28-96	2.0	2.5	34.1	49.0	16.9	0
			4.5	5	14.0	15.0	39.3	31.7
			7.5	8	0.5	2.6	92.8	4.1
			15.5	16	5.1	17.4	76.7	.8
18	423419093172401	04-15-97	1.5	2	13.2	14.9	63.8	8.1
			4.5	5	9.3	14.0	62.0	14.7
			11.5	12	12.4	22.2	50.9	14.5
			1.5	2	4.6	1.4	87.7	6.3
19	423557091560501	11-12-96	1.5	2	15.8	18.6	63.5	2.1
			5.5	6	41.1	56.4	2.5	0
			11.5	12	40.8	59.0	.2	0
			16.5	17	39.9	47.7	12.4	0
20	423639092350901	05-05-97	1.5	2	7.1	12.9	79.6	.4
			6.5	7	1.1	4.5	94.4	0
			15.5	16	.5	2.6	96.8	.1
21	424203092551301	04-15-97	4.5	5	.8	2.4	84.4	12.4
			14.5	15	.7	2.5	85.9	10.9
22	424548092101701	11-13-96	1.5	2	29.4	31.5	39.1	0
			4.5	5	46.4	43.0	10.6	0
			5.5	6	3.6	5.7	90.6	.1
			13.5	14	5.1	5.5	89.4	0
23	425401093135201	11-01-96	2.0	2.5	11.5	7.2	65.5	15.8
			3.5	4	5.1	4.4	57.6	32.9
			7.5	8	0	.6	76.6	22.8
			17.5	18	.2	2.0	70.4	27.4
			19.0	19.5	33.2	35.6	29.3	1.9
24	425756092162401	11-13-96	2.0	2.5	15.2	20.3	53.2	11.3
			4.5	5	3.3	4.9	90.8	1.0
			6.5	7	3.7	3.9	91.9	.5

**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
Agricultural land-use wells—Continued								
24	425756092162401	11-13-96	11.5	12	2.8	2.9	94.1	0.2
			12.5	13	12.1	30.3	57.6	0
			15.5	16	4.0	6.1	88.5	1.4
25	430159093403201	11-07-96	2.0	2.5	34.3	29.1	36.6	0
			5.5	6	14.2	24.9	55.0	5.9
			9.5	10	13.1	26.8	56.5	3.6
			26.5	27	12.2	36.1	50.2	1.5
26	430525093023501	05-05-97	1.5	2	3.1	7.3	15.8	73.8
			6.5	7	53.2	25.8	12.7	8.3
27	431222093313301	05-01-97	1.5	2	8.9	13.8	76.9	.4
			6.5	7	3.9	5.6	83.5	7.0
			15.5	16	.7	3.9	91.6	3.8
			19.5	20	.2	4.1	75.9	19.8
28	431339093155901	05-01-97	1.5	2	6.5	3.3	85.1	5.1
			4.5	5	.3	2.1	42.8	54.8
			11.5	12	1.5	1.8	58.6	38.1
29	432946093161901	10-09-96	1.5	2	5.1	15.0	79.9	0
			6.5	7	6.2	34.0	59.8	0
			10.5	11	13.8	69.0	17.2	0
			19.5	20	16.6	22.7	48.8	11.9
30	433815093000001	07-08-97	2.5	3	22.5	23.3	53.0	1.2
			12.5	13	19.4	22.1	56.5	2.0
			13.5	14	3.4	6.7	80.3	9.6
31	435221093001901	07-08-97	2.5	3	11.2	11.1	72.6	5.1
			7.5	8	3.3	2.7	93.0	1.0
			12.5	13	2.8	3.6	90.8	2.8
Urban land-use wells								
32	412855091421601	08-14-96	2.0	2.5	1.7	2.6	4.7	91.0
			3.5	4	37.5	44.9	15.2	2.4
			6.5	7	34.7	47.6	17.7	0
			10.5	11	28.0	47.5	23.9	0.6
			15.5	16	39.0	46.2	14.8	0
			18.5	19	8.5	12.5	79.0	0
33	413414091095501	08-06-96	1.5	2	26.2	66.6	7.2	0
			5.5	6	25.8	69.8	4.4	0
			11.5	12	36.5	60.9	2.6	0
			13.5	14	32.9	57.4	9.7	0
			19.5	20	4.7	7.9	86.1	1.3
			26.5	27	2.5	4.9	91.9	.7
34	413823091322301	08-19-96	2.0	2.5	31.6	61.5	6.9	0
			3.5	4	31.8	58.0	10.2	0
			5.5	6	14.1	27.1	56.2	2.6
			9.5	10	.5	2.5	92.0	5.0
			15.5	16	.3	1.6	74.2	23.9



**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
Urban land-use wells—Continued								
34	413823091322301	08-19-96	25.5	26	0.2	1.5	77.2	21.1
35	413933091304701	08-09-96	1.5	2	24.7	46.4	28.9	0
			4.5	5	33.6	61.7	4.7	0
			12.5	13	21.1	43.8	35.1	0
			24.5	25	9.1	11.7	79.2	0
			36.5	37	45.5	53.8	.7	0
36	414435090465101	08-05-96	1.5	2	22.8	48.7	16.2	12.3
			4.5	5	40.8	57.8	1.4	0
			9.5	10	30.8	68.7	.5	0
			27.0	27.5	1.4	14.4	79.1	5.1
37	415825091405601	08-13-96	2.0	2.5	12.5	16.2	40.5	30.8
			4.5	5	21.5	26.2	41.2	11.1
			8.5	9	4.8	5.9	89.3	0
			16.5	17	.2	2.0	96.9	.9
38	415827091392401	08-13-96	2.0	2.5	10.3	11.9	77.8	0
			4.5	5	28.4	29.3	42.3	0
			9.5	10	5.3	10.8	83.9	0
			21.5	22	.2	2.0	88.6	9.2
			26.5	27	2.9	3.8	86.1	7.2
39	415850090572201	05-12-97	1.5	2	26.3	31.6	42.1	0
			11.5	12	3.9	4.3	88.9	2.9
			14.5	15	.5	1.5	85.8	12.2
40	420219093361301	08-08-96	2.0	2.5	28.6	37.0	34.4	0
			7.0	7.5	11.7	22.8	65.5	0
			13.0	13.5	.3	2.4	96.5	.8
			27.0	27.5	.1	5.4	83.0	11.5
41	420240092535001	08-07-96	2.5	3	29.8	50.1	16.1	4.0
			6.5	7	31.8	53.1	15.1	0
			9.5	10	27.3	66.3	6.4	0
			16.5	17	12.9	31.2	55.9	0
			29.5	30	8.4	13.3	62.8	15.5
42	420347092541601	08-07-96	2.0	2.5	31.4	52.8	15.8	0
			2.5	3	5.6	9.8	83.0	1.6
			4.5	5	.1	1.5	68.6	29.8
			17.0	17.5	.1	1.6	83.3	15.0
43	420936092005701	08-15-96	2.0	2.5	43.4	51.1	5.5	0
			3.0	3.5	36.8	61.4	1.8	0
			4.5	5	8.8	23.7	67.5	0
			12.0	12.5	8.7	17.1	74.2	0
			15.5	16	14.1	24.3	55.5	6.1
44	421012092020101	08-15-96	2.0	2.5	24.2	51.1	24.7	0
			3.0	3.5	15.5	57.4	27.1	0
			5.5	6	.9	3.8	94.0	1.3

**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
Urban land-use wells—Continued								
44	421012092020101	08-15-96	15.5	16	0.2	1.3	97.0	1.5
45	422426092272401	11-11-96	2.5	3	25.8	41.5	32.7	0
			3.5	4	6.4	13.6	72.9	7.1
			14.5	15	5.7	7.2	86.1	1.0
			24.5	25	5.3	7.7	85.3	1.7
			25.5	26	32.3	34.2	32.4	1.1
46	422754092375301	10-31-96	1.5	2	34.4	47.9	17.3	.4
			4.5	5	6.2	5.0	56.5	32.3
			5.5	6	8.7	6.3	67.5	17.5
			10.5	11	5.6	6.7	74.3	13.4
			14.5	15	42.0	27.3	29.5	1.2
47	422913092192501	08-20-96	3.5	4	13.4	34.4	23.6	28.6
			6.5	7	5.7	7.9	65.5	20.9
			14.5	15	21.5	32.3	46.2	0
			19.5	20	4.6	9.2	51.0	35.2
			24.5	25	2.0	3.9	61.1	33.0
48	422918092183901	08-20-96	2.0	2.5	6.8	9.7	69.6	13.9
			3.5	4	17.1	12.9	66.2	3.8
			6.5	7	6.2	5.7	74.6	13.5
			9.5	10	2.0	2.1	70.6	25.3
			12.5	13	3.5	3.6	54.9	38.0
			16.5	17	21.9	16.2	49.7	12.2
49	423018092200901	08-21-96	2.0	2.5	13.4	20.0	66.6	0
			3.5	4	5.7	7.5	68.0	18.8
			4.5	5	.1	1.8	97.6	.5
			9.5	10	.2	1.0	86.9	11.9
50	423459092523701	10-07-96	1.5	2	24.8	37.0	38.2	0
			3.5	4	5.7	4.9	78.2	11.2
			10.5	11	1.4	3.1	66.9	28.6
			19.5	20	1.3	1.6	75.3	21.8
			21.5	22	.8	3.1	80.9	15.2
51	423459092530501	10-08-96	2.5	3	13.6	15.3	62.0	9.1
			4.5	5	26.7	30.3	32.9	10.1
			5.5	6	6.4	7.1	58.5	28.0
			8.5	9	2.6	4.0	67.6	25.8
			11.5	12	1.8	2.7	59.4	36.1
			16.5	17	20.8	13.7	50.6	14.9
52	423930093294901	10-31-96	2.0	2.5	26.2	30.0	39.1	4.7
			4.5	5	9.9	7.2	53.1	29.8
			14.5	15	7.1	3.6	81.3	8.0
			16.5	17	25.9	29.0	39.0	6.1
53	424034091553401	10-10-96	1.5	2	14.9	20.0	60.0	5.1
			3.5	4	5.9	13.8	78.9	1.4
			12.5	13	5.7	14.1	78.1	2.1

**Table 25.** Aquifer-material grain-size distribution from land-use well borehole cuttings, 1996-97—Continued

Map-index number (fig. 2)	Well identification	Date (month-day-year)	Depth to top of sample interval (ft)	Depth to bottom of sample interval (ft)	Clay (%)	Silt (%)	Sand (%)	Gravel (%)
Urban land-use wells—Continued								
53	424034091553401	10-10-96	16.5	17	7.2	16.5	74.6	1.7
54	424322092283901	05-06-97	1.5	2	19.9	69.9	10.2	0
			3.5	4	7.3	13.7	70.3	8.7
			14.5	15	.1	1.1	92.5	6.3
			20.5	21	.1	1.3	89.5	9.1
55	430414092405801	09-17-96	2.0	2.5	23.0	27.0	47.9	2.1
			4.5	5	3.3	3.6	63.6	29.5
			6.5	7	1.5	1.0	86.7	10.8
			17.5	18	21.9	21.6	47.0	9.5
56	430442092402201	09-17-96	2.0	2.5	8.6	15.0	71.3	5.1
			6.5	7	8.6	12.3	76.5	2.6
57	431438092262201	05-07-97	1.5	2	27.5	41.2	30.2	1.1
			5.5	6	.3	1.4	85.2	13.1
			13.5	14	2.3	3.0	88.5	6.2
58	433855093222401	07-07-97	2.5	3	15.9	28.4	50.6	5.1
			8.5	9	40.3	42.3	16.5	0.9
58	433855093222401	07-07-97	15.5	16	9.4	24.3	51.5	14.8
59	433944092583501	07-08-97	2.5	3	24.0	32.6	42.0	1.4
			7.5	8	8.5	12.9	78.6	0
			13.5	14	7.6	8.8	83.6	0
			16.5	17	38.8	19.0	40.6	1.6
60	434003092575401	07-08-97	2.5	3	15.6	21.4	41.0	22.0
			6.5	7	13.8	16.9	61.3	8.0
			15.5	16	4.1	8.1	75.5	12.3
			16.5	17	21.8	27.6	33.5	17.1
61	434023093214201	07-07-97	2.5	3	25.6	42.9	31.5	0
			6.5	7	12.7	62.9	24.4	0
			13.5	14	30.1	48.0	21.9	0
			17.5	18	21.8	76.8	1.4	0

**Table 26.** Miscellaneous onsite determinations in samples from alluvial study-unit survey wells, 1998

[NTU, nephelometric turbidity units;  $\mu\text{S}/\text{cm}$ , microsiemens per centimeter at 25 °C; °C, degrees Celsius; mg/L, milligrams per liter; %, percent; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu\text{S}/\text{cm}$ ) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
1	410513091430401	07-22-98	1000	--	489	6.7	14.0	5.0	78	178	217	0
2	410956091135601	06-24-98	0930	64	600	7.2	13.5	.9	9	255	311	0
3	411622091193401	06-24-98	1215	0	525	6.8	12.5	1.0	10	203	248	0
4	412136091270501	06-25-98	0900	9.0	592	6.6	13.0	--	--	308	376	0
5	412711091122401	06-15-98	0945	3.0	498	7.2	14.0	1.2	12	276	337	0
6	412748091285101	06-16-98	1130	30	627	6.5	16.0	1.2	13	331	404	0
7	412808091345001	06-17-98	0915	13	373	5.9	11.5	3.8	36	58	71	0
8	412831091205601	06-16-98	0900	0	418	6.6	--	7.4	--	157	192	0
9	412916091405101	06-17-98	1125	16	643	6.7	11.5	4.7	44	338	412	0
10	413338091045601	07-16-98	0930	3.0	576	7.0	14.0	2.7	26	171	209	0
11	413438091341201	06-10-98	0945	45	597	6.7	13.0	.9	9	305	372	0
12	413523092050501	06-22-98	1000	0	833	6.7	10.0	6.4	59	312	381	0
13	413634091484301	06-18-98	0915	21	879	7.3	--	1.6	--	423	516	0
14	413705091392701	06-11-98	1000	--	455	6.6	11.0	.9	--	132	161	0
15	414036090460001	06-23-98	1215	3.0	556	6.7	12.0	1.6	15	281	343	0
16	414430093220001	07-14-98	1230	7.0	721	6.9	11.5	.2	2	267	326	0
17	414914092024001	07-15-98	1045	--	1,150	6.8	14.5	2.0	20	402	491	0
18	414944090470901	07-09-98	1200	13	423	7.0	12.0	.1	1	214	261	0
19	415053093282401	07-14-98	0900	1.0	734	7.0	13.0	1.2	12	318	390	0
20	415057093304801	07-13-98	1115	10	680	7.1	11.5	.1	1	268	327	0
21	415139092190801	06-30-98	0910	0	562	6.5	12.5	1.0	10	234	286	0
22	415147092115301	06-30-98	1230	16	523	6.3	11.5	8.3	79	123	150	0
23	415637091581001	06-30-98	0915	18	752	7.1	11.0	.1	1	336	410	0
24	415859090563901	06-23-98	1215	42	567	6.8	11.5	1.7	16	224	273	0
25	421657092081801	07-06-98	1125	25	462	7.3	13.5	.1	1	295	360	0

**Table 26.** Miscellaneous onsite determinations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu$ S/cm) (00095)	pH (standard units) (00400)	Water temperature ( $^{\circ}$ C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
26	422555092135201	07-01-98	1015	--	518	7.0	13.5	7.4	73	263	321	0
27	423208091562101	07-08-98	1115	--	331	6.6	12.0	2.4	23	129	157	0
28	423409092283001	07-07-98	0845	0	400	7.3	11.0	.1	1	228	278	0
29	423749092260801	07-07-98	1240	3.0	499	7.4	12.0	7.9	76	161	196	0
30	430255093083301	07-21-98	1330	0	630	7.0	11.0	2.1	20	335	409	0
31	430549092272301	07-21-98	0945	2.0	462	7.3	10.5	6.0	56	238	290	0
32	434556093003501	07-20-98	1145	34	492	7.3	9.5	.1	1	260	317	0

**Table 27.** Nutrient and dissolved organic carbon concentrations in samples from alluvial study-unit survey wells, 1998

[mg/L, milligrams per liter; &lt;, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Phosphorus, total (mg/L) (00666)	Orthophos-phorus, total, (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)
1	410513091430401	07-22-98	1000	regular	0.02	<0.01	0.3	14	1.0	0.06	2.0
2	410956091135601	06-24-98	0930	do.	<.02	.01	2.5	<.05	.04	<.01	2.0
3	411622091193401	06-24-98	1215	do.	.18	.01	.1	<.05	.02	.01	1.8
4	412136091270501	06-25-98	0900	do.	1.4	<.01	1.6	.06	.17	.15	2.2
5	412711091122401	06-15-98	0945	do.	1.4	<.01	1.3	.21	.16	.19	1.0
			0950	replicate	1.3	<.01	1.3	<.05	.14	.13	1.1
6	412748091285101	06-16-98	1130	regular	3.4	<.01	3.5	<.05	.80	.34	3.0
7	412808091345001	06-17-98	0915	do.	.03	<.01	<.1	9.1	.02	.02	.8
8	412831091205601	06-16-98	0900	do.	.02	<.01	<.1	4.3	.08	.05	1.4
9	412916091405101	06-17-98	1125	do.	1.2	<.01	1.3	<.05	.47	.29	1.1
10	413338091045601	07-16-98	0930	do.	.04	.02	<.1	22	.07	.07	.7
11	413438091341201	06-10-98	0945	do.	.33	.01	.3	.08	<.01	.01	1.1
12	413523092050501	06-22-98	0940	blank	.04	<.01	<.1	.10	<.01	<.01	.4
			1000	regular	.06	.12	.1	9.1	.02	.03	1.5
13	413634091484301	06-18-98	0915	do.	.06	<.01	4.5	<.05	.05	.02	2.2
14	413705091392701	06-11-98	1000	do.	.05	.02	<.1	3.4	<.01	.02	1.2
15	414036090460001	06-23-98	1215	do.	6.3	.02	6.4	<.05	.93	.62	2.8
16	414430093220001	07-14-98	1230	do.	.24	<.01	.3	<.05	.03	.04	2.2
17	414914092024001	07-15-98	1045	do.	.07	.01	<.1	.96	.12	.04	.9
18	414944090470901	07-09-98	1140	blank	<.02	<.01	<.1	<.05	.01	.02	.4
			1200	regular	2.4	<.01	2.4	<.05	.32	.77	2.2
19	415053093282401	07-14-98	0900	do.	.59	.01	.6	2.2	.02	.03	1.3
20	415057093304801	07-13-98	1115	do.	.05	<.01	<.1	<.05	.11	.04	1.5
21	415139092190801	06-30-98	0910	do.	0.04	<.01	.1	2.0	.06	.06	1.4
			0915	replicate	.02	<.01	.2	2.0	.06	.07	1.7

**Table 27.** Nutrient and dissolved organic carbon concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L as N) (00608)	Nitrogen, nitrite, dissolved (mg/L as N) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L as N) (00623)	Nitrite plus nitrate, dissolved (mg/L as N) (00631)	Phosphorus, total (mg/L) (00666)	Orthophos-phorus, total, (mg/L as P) (00671)	Dissolved organic carbon (mg/L) (00681)
22	415147092115301	06-30-98	1230	regular	<0.02	0.02	1.0	18	0.15	0.16	5.8
23	415637091581001	06-30-98	0915	do.	<.02	.01	.2	2.8	<.01	<.01	3.3
24	415859090563901	06-23-98	1215	do.	.56	.01	.7	<.05	.04	.03	1.2
25	421657092081801	07-06-98	1125	do.	.56	<.01	.6	<.05	.05	.04	1.3
26	422555092135201	07-01-98	1015	do.	.04	<.01	<.1	5.2	.05	.04	1.2
27	423208091562101	07-08-98	1115	do.	.34	<.01	.5	.66	.03	.04	2.0
28	423409092283001	07-07-98	0845	do.	.12	<.01	<.1	<.05	.01	.02	.5
29	423749092260801	07-07-98	1240	do.	.04	<.01	<.1	15	.04	.05	.8
30	430255093083301	07-21-98	1330	do.	.82	<.01	.9	<.05	<.01	.01	4.9
31	430549092272301	07-21-98	0945	do.	.82	<.01	.9	<.05	.05	.02	3.6
32	434556093003501	07-20-98	1145	do.	.33	<.01	.4	<.05	.03	.03	.8

**Table 28.** Major ion concentrations in samples from alluvial study-unit survey wells, 1998

[mg/L, milligrams per liter; µg/L, micrograms per liter; &lt;, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Magnesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potassium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (µg/L as Fe) (01046)	Manganese (µg/L as Mn) (01056)
1	410513091430401	07-22-98	1000	regular	66	15	12	2.5	5.5	28	0.1	13	<0.01	<10	<4
2	410956091135601	06-24-98	0930	do.	72	20	8.7	1.9	13	31	.1	17	.06	11,000	300
3	411622091193401	06-24-98	1215	do.	73	19	4.9	1.6	7.2	53	.1	12	.03	1,800	280
4	412136091270501	06-25-98	0900	do.	67	23	20	1.3	1.5	.80	.3	21	.03	3,900	150
5	412711091122401	06-15-98	0945	do.	60	19	16	1.4	.4	<.10	.2	18	.04	1,600	32
			0950	replicate	61	19	17	1.4	.4	<.10	.2	18	.02	1,600	32
6	412748091285101	06-16-98	1130	regular	80	22	13	1.6	.2	<.10	.2	28	.49	8,900	250
7	412808091345001	06-17-98	0915	do.	39	13	11	2.0	11	68	<.1	16	.04	31	<4
8	412831091205601	06-16-98	0900	do.	48	20	6.9	.49	3.3	28	.3	26	.07	<10	<4
9	412916091405101	06-17-98	1125	do.	81	28	19	2.1	.6	.27	.3	21	.02	3,100	62
10	413338091045601	07-16-98	0930	do.	71	18	7.8	10	15	39	.2	20	.07	<10	32
11	413438091341201	06-10-98	0945	do.	76	26	10	.76	3.2	28	.3	20	.06	3,200	220
12	413523092050501	06-22-98	0940	blank	.06	.01	<.10	<.10	<.1	<.10	<.1	<.10	<.01	<10	<4
			1000	regular	100	32	22	1.0	16	57	.3	22	.09	<10	<4
13	413634091484301	06-18-98	0915	do.	68	31	77	4.9	1.9	56	.3	17	.05	1,200	26
14	413705091392701	06-11-98	1000	do.	47	23	11	.45	23	35	.3	20	.05	<10	<4
15	414036090460001	06-23-98	1215	do.	63	22	7.8	1.1	1.3	<.10	.2	22	.02	6,700	70
16	414430093220001	07-14-98	1230	do.	100	32	6.4	1.1	19	96	.2	27	.12	2,000	470
17	414914092024001	07-15-98	1045	do.	110	49	53	.90	110	48	.3	26	.06	72	35
18	414944090470901	07-09-98	1140	blank	.10	.01	<.10	<.10	<.10	<.10	.1	.17	<.01	11	<4
			1200	regular	53	14	6.4	.91	9.7	6.9	.2	21	.06	9,700	250
19	415053093282401	07-14-98	0900	do.	99	31	16	2.5	8.8	66	.3	19	.07	160	35
20	415057093304801	07-13-98	1115	do.	98	29	5.1	.98	17	73	.3	26	.09	3,400	360



**Table 28.** Major ion concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Mag- nesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (μg/L as Fe) (01046)	Man- ganese (μg/L as Mn) (01056)
21	415139092190801	06-30-98	0910	regular	63	27	8.5	0.25	16	22	0.2	21	0.04	<10	<4
			0915	replicate	62	27	8.5	.27	16	22	.2	21	.04	<10	<4
22	415147092115301	06-30-98	1230	regular	60	16	16	2.4	23	36	.1	14	.03	<10	<4
23	415637091581001	06-30-98	0915	do.	86	25	36	2.0	7.9	110	.2	9.8	.05	<10	55
24	415859090563901	06-23-98	1215	do.	68	26	8.3	1.0	7.7	51	.2	15	.07	3,200	150
25	421657092081801	07-06-98	1125	do.	65	17	5.4	.95	.2	.77	.4	20	.02	2,900	350
26	422555092135201	07-01-98	1015	do.	77	18	4.6	1.4	8.4	20	<.1	18	.07	<10	<4
27	423208091562101	07-08-98	1115	do.	42	8.6	5.9	1.7	6.8	15	.2	18	.06	5,400	650
28	423409092283001	07-07-98	0845	do.	56	17	4.7	1.1	.7	6.6	.4	12	.03	150	140
29	423749092260801	07-07-98	1240	do.	66	15	5.9	3.0	9.9	19	<.1	19	.05	<10	<4
30	430255093083301	07-21-98	1330	do.	67	34	20	8.4	1.2	15	1.6	7.2	.02	170	13
31	430549092272301	07-21-98	0945	do.	64	18	9.9	1.4	.2	11	.4	12	.04	1,400	10
32	434556093003501	07-20-98	1145	do.	67	21	6.3	1.2	.4	8.6	.3	18	.03	1,500	64

**Table 29.** Concentrations and precision estimates of radiochemicals and stable isotopes in samples from alluvial study-unit survey wells, 1998

[pCi/L, picocuries per liter; &lt;, less than detection limit indicated; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Tritium, total (pCi/L) (07000)	Tritium, precision estimate (pCi/L) (75985)	Radon-222, total (pCi/L) (82303)	Radon-222, precision estimate (pCi/L) (76002)	Oxygen 18/16 ratio (82085)	Hydrogen 2/1 ratio (82082)
1	410513091430401	07-22-98	1000	regular	34	2.6	220	20	-7.33	-45.2
2	410956091135601	06-24-98	0930	do.	6.4	1.3	530	26	-7.23	-46.9
3	411622091193401	06-24-98	1215	do.	29	1.9	380	24	-7.10	-44.0
4	412136091270501	06-25-98	0900	do.	<1.0	1.0	690	190	-6.87	-42.8
5	412711091122401	06-15-98	0945	do.	<1.0	1.0	160	19	-6.69	-40.4
			0950	replicate	--	--	--	--	-6.73	-40.8
6	412748091285101	06-16-98	1130	regular	<1.0	1.0	180	19	-6.53	-42.7
7	412808091345001	06-17-98	0915	do.	38	2.6	220	21	--	--
8	412831091205601	06-16-98	0900	do.	38	2.6	2,100	43	-7.55	-47.4
9	412916091405101	06-17-98	1125	do.	<1.0	1.0	58	26	-6.62	-37.8
10	413338091045601	07-16-98	0930	do.	52	3.8	260	20	-7.27	-45.8
11	413438091341201	06-10-98	0945	do.	44	3.2	260	21	-7.82	-49.2
12	413523092050501	06-22-98	1000	do.	41	2.6	410	23	-7.08	-43.4
13	413634091484301	06-18-98	0915	do.	<1.0	1.0	500	25	-7.28	-44.7
14	413705091392701	06-11-98	1000	do.	60	3.8	280	20	-7.55	-44.4
15	414036090460001	06-23-98	1215	do.	15	1.3	370	25	-7.72	-48.9
16	414430093220001	07-14-98	1230	do.	26	1.9	260	22	-7.36	-46.3
17	414914092024001	07-15-98	1045	do.	45	3.2	200	21	-8.14	-53.7
18	414944090470901	07-09-98	1200	do.	17	1.6	260	20	-7.60	-48.6
19	415053093282401	07-14-98	0900	do.	27	1.9	280	22	-7.25	-44.3
20	415057093304801	07-13-98	1115	do.	26	1.9	230	20	-7.31	-46.0
21	415139092190801	06-30-98	0910	do.	42	3.2	1,000	33	-7.69	-47.6
22	415147092115301	06-30-98	1230	do.	33	2.6	370	23	-8.03	-52.0
23	415637091581001	06-30-98	0915	do.	34	2.6	53	17	-7.52	-47.5
24	415859090563901	06-23-98	1215	do.	40	2.6	320	24	-7.64	-47.4

**Table 29.** Concentrations and precision estimates of radiochemicals and stable isotopes in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Tritium, total (pCi/L) (07000)	Tritium, precision estimate (pCi/L) (75985)	Radon-222, total (pCi/L) (82303)	Radon-222, precision estimate (pCi/L) (76002)	Oxygen 18/16 ratio (82085)	Hydrogen 2/1 ratio (82082)
25	421657092081801	07-06-98	1125	regular	<1.0	1.0	200	19	-7.38	-45.7
26	422555092135201	07-01-98	1015	do.	35	2.6	620	26	-8.41	-55.4
27	423208091562101	07-08-98	1115	do.	43	3.2	350	24	-8.24	-52.2
28	423409092283001	07-07-98	0845	do.	1.0	1.0	330	26	-8.03	-50.3
29	423749092260801	07-07-98	1240	do.	41	2.6	560	30	-8.12	-53.2
30	430255093083301	07-21-98	1330	do.	2.6	1.0	480	24	-7.93	-50.9
31	430549092272301	07-21-98	0945	do.	<1.0	1.0	1,100	34	-7.63	-47.8
32	434556093003501	07-20-98	1145	do.	1.0	1.0	360	22	-8.97	-58.0

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998

[All concentrations are in micrograms per liter; <, less than detection limit indicated; E, estimated. Numbers in parentheses () are U.S. Geological Survey Water-Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24- hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
1	410513091430401	07-22-98	1000	regular	<0.003	<0.002	<0.002	0.169	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
			1010	spike	<.003	.124	.126	.268	<.001	.070	<.002	E.581	E.232	<.004
2	410956091135601	06-24-98	0930	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
3	411622091193401	06-24-98	1215	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
4	412136091270501	06-25-98	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
5	412711091122401	06-15-98	0945	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			0950	replicate	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
6	412748091285101	06-16-98	1130	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
7	412808091345001	06-17-98	0915	do.	<.003	<.002	<.002	.264	<.001	<.002	<.002	<.003	<.003	<.004
8	412831091205601	06-16-98	0900	do.	<.003	<.002	<.002	.136	<.001	<.002	<.002	<.003	<.003	<.004
9	412916091405101	06-17-98	1125	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
10	413338091045601	07-16-98	0930	do.	<.003	<.002	<.002	.019	<.001	<.002	<.002	<.003	<.003	<.004
11	413438091341201	06-10-98	0945	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
12	413523092050501	06-22-98	0940	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			1000	regular	<.003	<.002	<.002	.008	<.001	<.002	<.002	<.003	<.003	<.004
13	413634091484301	06-18-98	0915	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
14	413705091392701	06-11-98	1000	do.	<.003	<.002	<.002	.006	<.001	<.002	<.002	<.003	<.003	<.004
15	414036090460001	06-23-98	1215	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
16	414430093220001	07-14-98	1230	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
17	414914092024001	07-15-98	1045	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
18	414944090470901	07-09-98	1140	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
			1200	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
19	415053093282401	07-14-98	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
20	415057093304801	07-13-98	1115	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
21	415139092190801	06-30-98	0910	do.	<.003	<.002	<.002	E.002	<.001	<.002	<.002	<.003	<.003	<.004
			0915	replicate	<.003	<.002	<.002	E.001	<.001	<.002	<.002	<.003	<.003	<.004

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24- hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
22	415147092115301	06-30-98	1230	regular	<0.003	<0.002	<0.002	0.020	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
23	415637091581001	06-30-98	0915	do.	E.0010	<.002	<.002	.042	<.001	<.002	<.002	<.003	<.003	<.004
24	415859090563901	06-23-98	1215	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
25	421657092081801	07-06-98	1125	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
26	422555092135201	07-01-98	1015	do.	<.003	<.002	<.002	.035	<.001	<.002	<.002	<.003	<.003	<.004
27	423208091562101	07-08-98	1115	do.	<.003	<.002	<.002	E.003	<.001	<.002	<.002	<.003	<.003	<.004
28	423409092283001	07-07-98	0845	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
29	423749092260801	07-07-98	1240	do.	<.003	<.002	<.002	.083	<.001	<.002	<.002	<.003	<.003	<.004
30	430255093083301	07-21-98	1330	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
31	430549092272301	07-21-98	0945	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
32	434556093003501	07-20-98	1145	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
1	410513091430401	07-22-98	1000	regular	<0.004	<0.002	E0.032	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
			1010	spike	.088	.076	E.059	<.002	.114	<.017	<.002	.045	.036	<.003
2	410956091135601	06-24-98	0930	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
3	411622091193401	06-24-98	1215	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
4	412136091270501	06-25-98	0900	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
5	412711091122401	06-15-98	0945	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			0950	replicate	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
6	412748091285101	06-16-98	1130	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
7	412808091345001	06-17-98	0915	do.	<.004	<.002	E.161	<.002	<.001	<.017	<.002	<.004	<.003	<.003
8	412831091205601	06-16-98	0900	do.	<.004	<.002	E.098	<.002	<.001	<.017	<.002	<.004	<.003	<.003
9	412916091405101	06-17-98	1125	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
10	413338091045601	07-16-98	0930	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
11	413438091341201	06-10-98	0945	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
12	413523092050501	06-22-98	0940	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1000	regular	<.004	<.002	E.008	<.002	<.001	<.017	<.002	<.004	<.003	<.003
13	413634091484301	06-18-98	0915	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
14	413705091392701	06-11-98	1000	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
15	414036090460001	06-23-98	1215	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
16	414430093220001	07-14-98	1230	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
17	414914092024001	07-15-98	1045	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
18	414944090470901	07-09-98	1140	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			1200	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
19	415053093282401	07-14-98	0900	do.	<.004	<.002	E.006	<.002	<.001	<.017	<.002	<.004	<.003	<.003
20	415057093304801	07-13-98	1115	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
21	415139092190801	06-30-98	0910	do.	<.004	<.002	E.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
			0915	replicate	<.004	<.002	E.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
22	415147092115301	06-30-98	1230	regular	<.004	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003
23	415637091581001	06-30-98	0915	do.	<.004	<.002	E.015	<.002	<.001	<.017	<.002	<.004	<.003	<.003
24	415859090563901	06-23-98	1215	do.	<.004	<.002	E.001	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
25	421657092081801	07-06-98	1125	regular	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
26	422555092135201	07-01-98	1015	do.	<.004	<.002	E.037	<.002	<.001	<.017	<.002	<.004	<.003	<.003
27	423208091562101	07-08-98	1115	do.	<.004	<.002	E.004	<.002	<.001	<.017	<.002	<.004	<.003	<.003
28	423409092283001	07-07-98	0845	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
29	423749092260801	07-07-98	1240	do.	<.004	<.002	E.092	<.002	<.001	<.017	<.002	<.004	<.003	<.003
30	430255093083301	07-21-98	1330	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
31	430549092272301	07-21-98	0945	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
32	434556093003501	07-20-98	1145	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala- thion (39532)	Metol- achlor (39415)	Metri- buzin (82630)	Molinate (82671)	Naprop- amide (82684)	Parathion (39542)	Para- thion- methyl (82667)	Pebulate (82669)
1	410513091430401	07-22-98	1000	regular	<0.004	<0.002	<0.005	0.010	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
			1010	spike	.090	.168	<0.005	.119	.040	<0.004	.065	<0.004	<0.006	<0.004
2	410956091135601	06-24-98	0930	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
3	411622091193401	06-24-98	1215	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
4	412136091270501	06-25-98	0900	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
5	412711091122401	06-15-98	0945	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
			0950	replicate	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
6	412748091285101	06-16-98	1130	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
7	412808091345001	06-17-98	0915	do.	<0.004	<0.002	<0.005	.015	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
8	412831091205601	06-16-98	0900	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
9	412916091405101	06-17-98	1125	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
10	413338091045601	07-16-98	0930	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
11	413438091341201	06-10-98	0945	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
12	413523092050501	06-22-98	0940	blank	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
			1000	regular	<0.004	<0.002	<0.005	E.003	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
13	413634091484301	06-18-98	0915	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
14	413705091392701	06-11-98	1000	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
15	414036090460001	06-23-98	1215	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
16	414430093220001	07-14-98	1230	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
17	414914092024001	07-15-98	1045	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
18	414944090470901	07-09-98	1140	blank	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
			1200	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
19	415053093282401	07-14-98	0900	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
20	415057093304801	07-13-98	1115	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
21	415139092190801	06-30-98	0910	do.	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
			0915	replicate	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
22	415147092115301	06-30-98	1230	regular	<0.004	<0.002	<0.005	E.001	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
23	415637091581001	06-30-98	0915	do.	<0.004	<0.002	<0.005	.008	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
24	415859090563901	06-23-98	1215	do.	<0.004	<0.002	<0.005	E.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004



**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala- thion (39532)	Metol- achlor (39415)	Metri- buzin (82630)	Molinate (82671)	Naprop- amide (82684)	Parathion (39542)	Para- thion- methyl (82667)	Pebulate (82669)
25	421657092081801	07-06-98	1125	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
26	422555092135201	07-01-98	1015	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
27	423208091562101	07-08-98	1115	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
28	423409092283001	07-07-98	0845	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
29	423749092260801	07-07-98	1240	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
30	430255093083301	07-21-98	1330	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
31	430549092272301	07-21-98	0945	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
32	434556093003501	07-20-98	1145	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
1	410513091430401	07-22-98	1000	regular	<0.004	<0.002	0.135	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007
			1010	spike	.086	<.002	.260	.113	.097	.113	.082	.086	.108	<.007
2	410956091135601	06-24-98	0930	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
3	411622091193401	06-24-98	1215	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
4	412136091270501	06-25-98	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
5	412711091122401	06-15-98	0945	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			0950	replicate	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
6	412748091285101	06-16-98	1130	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
7	412808091345001	06-17-98	0915	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	.011	<.007
8	412831091205601	06-16-98	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
9	412916091405101	06-17-98	1125	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
10	413338091045601	07-16-98	0930	do.	<.004	<.002	.191	<.007	<.004	<.013	<.003	<.005	<.010	<.007
11	413438091341201	06-10-98	0945	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
12	413523092050501	06-22-98	0940	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1000	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
13	413634091484301	06-18-98	0915	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
14	413705091392701	06-11-98	1000	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
15	414036090460001	06-23-98	1215	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
16	414430093220001	07-14-98	1230	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
17	414914092024001	07-15-98	1045	do.	<.004	<.002	.110	<.007	<.004	<.013	<.003	<.005	<.010	<.007
18	414944090470901	07-09-98	1140	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			1200	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
19	415053093282401	07-14-98	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
20	415057093304801	07-13-98	1115	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
21	415139092190801	06-30-98	0910	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
			0915	replicate	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
22	415147092115301	06-30-98	1230	regular	<.004	<.002	.0201	<.007	<.004	<.013	<.003	<.005	<.010	<.007
23	415637091581001	06-30-98	0915	do.	<.004	<.002	.072	<.007	<.004	<.013	<.003	<.005	<.010	<.007
24	415859090563901	06-23-98	1215	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
25	421657092081801	07-06-98	1125	regular	<0.004	<0.002	<0.018	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007
26	422555092135201	07-01-98	1015	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	E.001	<.010	<.007
27	423208091562101	07-08-98	1115	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
28	423409092283001	07-07-98	0845	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
29	423749092260801	07-07-98	1240	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
30	430255093083301	07-21-98	1330	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
31	430549092272301	07-21-98	0945	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
32	434556093003501	07-20-98	1145	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
1	410513091430401	07-22-98	1000	regular	<.013	<0.002	<0.001	<0.002	<0.002	<0.005	<0.006
			1010	spike	<.013	.015	.044	.078	.079	.064	.058
2	410956091135601	06-24-98	0930	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
3	411622091193401	06-24-98	1215	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
4	412136091270501	06-25-98	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
5	412711091122401	06-15-98	0945	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			0950	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006
6	412748091285101	06-16-98	1130	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
7	412808091345001	06-17-98	0915	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
8	412831091205601	06-16-98	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
9	412916091405101	06-17-98	1125	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
10	413338091045601	07-16-98	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
11	413438091341201	06-10-98	0945	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
12	413523092050501	06-22-98	0940	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1000	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
13	413634091484301	06-18-98	0915	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
14	413705091392701	06-11-98	1000	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
15	414036090460001	06-23-98	1215	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
16	414430093220001	07-14-98	1230	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
17	414914092024001	07-15-98	1045	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
18	414944090470901	07-09-98	1140	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			1200	regular	<.013	<.010	<.001	<.002	<.002	<.005	<.006
19	415053093282401	07-14-98	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
20	415057093304801	07-13-98	1115	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
21	415139092190801	06-30-98	0910	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
			0915	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006
22	415147092115301	06-30-98	1230	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
23	415637091581001	06-30-98	0915	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
24	415859090563901	06-23-98	1215	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
25	421657092081801	07-06-98	1125	regular	<0.013	<0.002	<0.001	<0.002	<0.002	<0.005	<0.006
26	422555092135201	07-01-98	1015	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
27	423208091562101	07-08-98	1115	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
28	423409092283001	07-07-98	0845	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
29	423749092260801	07-07-98	1240	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
30	430255093083301	07-21-98	1330	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
31	430549092272301	07-21-98	0945	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
32	434556093003501	07-20-98	1145	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbo- furan (49309)	3-Hydr- oxycarbo- furan (49308)	Chlor- amben (49307)	Chloro- thalonil (49306)	Clopy- ralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlo- benil (49303)	Dichlor- prop (49302)
1	410513091430401	07-22-98	1000	regular	<0.008	<0.120	0.070	<0.420	<0.480	<0.230	<0.017	<0.035	<1.20	<0.032
			1010	spike	<.690	<.080	.510	<.420	E.380	E.260	<.980	<.960	E.570	<.900
2	410956091135601	06-24-98	0930	regular	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
3	411622091193401	06-24-98	1215	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
4	412136091270501	06-25-98	0900	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
5	412711091122401	06-15-98	0945	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
			0950	replicate	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
6	412748091285101	06-16-98	1130	regular	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
7	412808091345001	06-17-98	0915	do.	<.008	<13.2	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
8	412831091205601	06-16-98	0900	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
9	412916091405101	06-17-98	1125	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
10	413338091045601	07-16-98	0930	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
11	413438091341201	06-10-98	0945	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
12	413523092050501	06-22-98	0940	blank	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
			1000	regular	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
13	413634091484301	06-18-98	0915	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
14	413705091392701	06-11-98	1000	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
15	414036090460001	06-23-98	1215	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
16	414430093220001	07-14-98	1230	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
17	414914092024001	07-15-98	1045	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
18	414944090470901	07-09-98	1140	blank	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
			1200	regular	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
19	415053093282401	07-14-98	0900	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
20	415057093304801	07-13-98	1115	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
21	415139092190801	06-30-98	0910	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
			0915	replicate	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
22	415147092115301	06-30-98	1230	regular	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
23	415637091581001	06-30-98	0915	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Carbaryl (49310)	Carbo- furan (49309)	3-Hydr- oxycarbo- furan (49308)	Chlor- amben (49307)	Chloro- thalonil (49306)	Clopy- ralid (49305)	Dacthal (49304)	Dicamba (38442)	Dichlo- benil (49303)	Dichlor- prop (49302)
24	415859090563901	06-23-98	1215	regular	<0.008	<0.120	<0.014	<0.420	<0.480	<0.230	<0.017	<0.035	<1.20	<0.032
25	421657092081801	07-06-98	1125	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
26	422555092135201	07-01-98	1015	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	.100
27	423208091562101	07-08-98	1115	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
28	423409092283001	07-07-98	0845	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
29	423749092260801	07-07-98	1240	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
30	430255093083301	07-21-98	1330	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
31	430549092272301	07-21-98	0945	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032
32	434556093003501	07-20-98	1145	do.	<.008	<.120	<.014	<.420	<.480	<.230	<.017	<.035	<1.20	<.032

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
1	410513091430401	07-22-98	1000	regular	<0.035	<0.020	<0.420	<0.013	<0.035	<0.018	<0.170	<0.140	<0.026
			1010	spike	<.035	<.710	<.420	<1.04	<.850	<.840	<.640	<.660	<.026
2	410956091135601	06-24-98	0930	regular	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
3	411622091193401	06-24-98	1215	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
4	412136091270501	06-25-98	0900	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
5	412711091122401	06-15-98	0945	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
			0950	replicate	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
6	412748091285101	06-16-98	1130	regular	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
7	412808091345001	06-17-98	0915	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
8	412831091205601	06-16-98	0900	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
9	412916091405101	06-17-98	1125	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
10	413338091045601	07-16-98	0930	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
11	413438091341201	06-10-98	0945	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
12	413523092050501	06-22-98	0940	blank	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
			1000	regular	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
13	413634091484301	06-18-98	0915	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
14	413705091392701	06-11-98	1000	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
15	414036090460001	06-23-98	1215	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
16	414430093220001	07-14-98	1230	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
17	414914092024001	07-15-98	1045	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
18	414944090470901	07-09-98	1140	blank	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
			1200	regular	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
19	415053093282401	07-14-98	0900	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
20	415057093304801	07-13-98	1115	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
21	415139092190801	06-30-98	0910	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
			0915	replicate	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
22	415147092115301	06-30-98	1230	regular	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
23	415637091581001	06-30-98	0915	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026



**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Dinoseb (49301)	Diuron (49300)	DNOC (49299)	Fenuron (49297)	Fluometuron (38811)	Linuron (38478)	MCPA (38482)	MCPB (38487)	Methiocarb (38501)
24	415859090563901	06-23-98	1215	regular	<0.035	<0.020	<0.420	<0.013	<0.035	<0.018	<0.170	<0.140	<0.026
25	421657092081801	07-06-98	1125	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
26	422555092135201	07-01-98	1015	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
27	423208091562101	07-08-98	1115	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
28	423409092283001	07-07-98	0845	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
29	423749092260801	07-07-98	1240	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
30	430255093083301	07-21-98	1330	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
31	430549092272301	07-21-98	0945	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026
32	434556093003501	07-20-98	1145	do.	<.035	<.020	<.420	<.013	<.035	<.018	<.170	<.140	<.026

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
1	410513091430401	07-22-98	1000	regular	<.017	<.015	<.024	<.910	<.018	<.050	<.035	<.035	<.021	<.250
			1010	spike	<.017	E.700	<.024	<1.25	<.620	<.550	<.230	<.870	<.840	<.840
2	410956091135601	06-24-98	0930	regular	<.017	<.015	<.024	<.670	<.018	<.050	<.035	<.035	<.021	<.250
3	411622091193401	06-24-98	1215	do.	<.017	<.015	<.024	<.540	<.018	<.050	<.035	<.035	<.021	<.250
4	412136091270501	06-25-98	0900	do.	<.017	<.015	<.024	<.970	<.018	<.050	<.035	<.035	<.021	<.250
5	412711091122401	06-15-98	0945	do.	<.017	<.015	<.024	<.570	<.018	<.050	<.035	<.035	<.021	<.250
			0950	replicate	<.017	<.015	<.024	<.630	<.018	<.050	<.035	<.035	<.021	<.250
6	412748091285101	06-16-98	1130	regular	<.017	<.015	<.150	<.910	<.018	<.050	<.035	<.035	<.021	<.250
7	412808091345001	06-17-98	0915	do.	<.017	<.015	<.024	<.530	<.210	<.050	<.035	<.035	<.021	<.250
8	412831091205601	06-16-98	0900	do.	<.017	<.015	<.024	<.590	<.018	<.050	<.035	<.035	<.021	<.250
9	412916091405101	06-17-98	1125	do.	<.017	<.015	<.024	<.770	<.018	<.050	<.035	<.035	<.021	<.250
10	413338091045601	07-16-98	0930	do.	<.017	<.015	<.024	<.520	<.018	<.050	<.035	<.035	<.021	<.250
11	413438091341201	06-10-98	0945	do.	<.017	<.015	<.024	<.590	<.018	.170	<.035	<.035	<.021	<.250
12	413523092050501	06-22-98	0940	blank	<.017	<.015	<.024	<.660	<.018	<.050	<.035	<.035	<.021	<.250
			1000	regular	<.017	<.015	<.024	<.700	<.018	<.050	<.035	<.035	<.021	<.250
13	413634091484301	06-18-98	0915	do.	<.017	<.015	<.024	<.800	<.018	<.050	<.035	<.035	<.021	<.250
14	413705091392701	06-11-98	1000	do.	<.017	<.015	<.024	<.310	<.018	<.050	<.035	<.035	<.021	<.250
15	414036090460001	06-23-98	1215	do.	<.017	<.015	<.024	<.870	<.018	<.050	<.035	<.035	<.021	<.250
16	414430093220001	07-14-98	1230	do.	<.017	<.015	<.024	<.710	<.018	<.050	<.035	<.035	<.021	<.250
17	414914092024001	07-15-98	1045	do.	<.017	<.015	<.024	<.760	<.018	<.050	<.035	<.035	<.021	<.250
18	414944090470901	07-09-98	1140	blank	<.017	<.015	<.024	<.780	<.018	<.050	<.035	<.035	<.021	<.250
			1200	regular	<.017	<.015	<.024	<1.06	<.018	<.050	<.035	<.035	<.021	<.250
19	415053093282401	07-14-98	0900	do.	<.017	<.015	<.024	<.630	<.018	<.050	<.035	<.035	<.021	<.250
20	415057093304801	07-13-98	1115	do.	<.017	<.015	<.024	<.730	<.018	<.050	<.035	<.035	<.021	<.250
21	415139092190801	06-30-98	0910	do.	<.017	<.015	<.024	<.600	<.018	<.050	<.035	<.035	<.021	<.250
			0915	replicate	<.017	<.015	<.024	<.490	<.018	<.050	<.035	<.035	<.021	<.250
22	415147092115301	06-30-98	1230	regular	<.017	<.015	<.024	<.680	<.018	<.050	<.035	<.035	<.021	<.250
23	415637091581001	06-30-98	0915	do.	<.017	<.015	<.024	<.630	<.018	<.050	<.035	<.035	<.021	<.250

**Table 30.** Selected dissolved pesticide concentrations in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Methomyl (49296)	Neburon (49294)	Norflurazon (49293)	Oryzalin (49292)	Oxamyl (38866)	Picloram (49291)	Propham (49236)	Propoxur (38538)	Silvex (39762)	Triclopyr (49235)
24	415859090563901	06-23-98	1215	regular	<0.017	<0.015	<0.024	<0.560	<0.018	<0.050	<0.035	<0.035	<0.021	<0.250
25	421657092081801	07-06-98	1125	do.	<.017	<.015	<.024	<.750	<.018	<.050	<.035	<.035	<.021	<.250
26	422555092135201	07-01-98	1015	do.	<.017	<.015	<.024	<.560	<.018	<.050	<.035	<.035	<.021	<.250
27	423208091562101	07-08-98	1115	do.	<.017	<.015	<.024	<.740	<.018	<.050	<.035	<.035	<.021	<.250
28	423409092283001	07-07-98	0845	do.	<.017	<.015	<.024	<.760	<.018	<.050	<.035	<.035	<.021	<.250
29	423749092260801	07-07-98	1240	do.	<.017	<.015	<.024	<.630	<.018	<.050	<.035	<.035	<.021	<.250
30	430255093083301	07-21-98	1330	do.	<.017	<.015	<.024	<.840	<.018	<.050	<.035	<.035	<.021	<.250
31	430549092272301	07-21-98	0945	do.	<.017	<.015	<.024	<.640	<.018	<.050	<.035	<.035	<.021	<.250
32	434556093003501	07-20-98	1145	do.	<.017	<.015	<.024	<.790	<.018	<.050	<.035	<.035	<.021	<.250

**Table 31.** Concentrations of selected dissolved pesticide surrogates in samples from alluvial study-unit survey wells, 1998  
 [% , percent. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Diazinon, surrogate (% recovery) (91063)	Terbutyl-azine, surrogate (% recovery) (91064)	alpha-HCH-d6, surrogate (% recovery) (91065)	BDMC, surrogate (% recovery) (99835)
1	410513091430401	07-22-98	1000	regular	0	86.2	66.5	93.0
			1010	spike	0	91.6	70.1	82.0
2	410956091135601	06-24-98	0930	regular	93.2	103	74.0	88.0
3	411622091193401	06-24-98	1215	do.	98.7	110	99.1	79.0
4	412136091270501	06-25-98	0900	do.	101	108	77.1	88.0
5	412711091122401	06-15-98	0945	do.	94.6	95.4	90.0	74.0
			0950	replicate	96.3	100	87.7	82.0
6	412748091285101	06-16-98	1130	regular	93.9	100	86.3	84.0
7	412808091345001	06-17-98	0915	do.	99.1	100	89.4	92.0
8	412831091205601	06-16-98	0900	do.	90.6	94.0	81.9	91.0
9	412916091405101	06-17-98	1125	do.	88.7	94.6	85.9	92.0
10	413338091045601	07-16-98	0930	do.	95.5	97.7	80.8	89.0
11	413438091341201	06-10-98	0945	do.	94.6	94.6	89.4	83.0
12	413523092050501	06-22-98	0940	blank	92.6	103	97.2	90.0
			1000	regular	69.1	74.4	72.0	103
13	413634091484301	06-18-98	0915	do.	90.7	102	97.0	83.0
14	413705091392701	06-11-98	1000	do.	105	112	96.4	83.0
15	414036090460001	06-23-98	1215	do.	99.1	115	89.7	87.0
16	414430093220001	07-14-98	1230	do.	101	108	94.8	78.0
17	414914092024001	07-15-98	1045	do.	105	116	96.3	81.0
18	414944090470901	07-09-98	1140	blank	87.8	89.8	81.9	77.0
			1200	regular	93.7	102	80.6	85.0
19	415053093282401	07-14-98	0900	do.	108	117	96.3	75.0
20	415057093304801	07-13-98	1115	do.	99.8	109	87.6	83.0
21	415139092190801	06-30-98	0910	do.	107	118	111	78.0
			0915	replicate	99.0	106	101	72.0
22	415147092115301	06-30-98	1230	regular	104	114	107	86.0
23	415637091581001	06-30-98	0915	do.	104	115	108	73.0
24	415859090563901	06-23-98	1215	do.	102	115	101	89.0
25	421657092081801	07-06-98	1125	do.	102	105	73.3	78.0
26	422555092135201	07-01-98	1015	do.	110	123	110	86.0
27	423208091562101	07-08-98	1115	do.	92.0	111	86.8	78.0
28	423409092283001	07-07-98	0845	do.	99.9	109	76.1	80.0
29	423749092260801	07-07-98	1240	do.	100	108	71.7	86.0
30	430255093083301	07-21-98	1330	do.	92.1	78.3	63.1	74.0
31	430549092272301	07-21-98	0945	do.	96.6	87.6	67.5	78.0
32	434556093003501	07-20-98	1145	do.	96.9	87.2	71.6	78.0

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998

[All concentrations are in micrograms per liter; <, less than detection limit indicated; E, estimated; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,1,2,- Tetra- chloro- ethane (77562)	1,1,1- Trichloro- ethane (34506)	1,1,2,2- Tetra- chloro- ethane (34516)	1,1,2-Tri- chloro- ethane (34511)	1,1,2- Trichloro- trifluoro- ethane (77652)	1,1- Dichloro- ethane (34496)	1,1- Dichloro- ethylene (34501)	1,1- Dichloro- propene (77168)	1,2,3,4- Tetra- methyl- benzene (49999)
1	410513091430401	07-22-98	0959	regular	<0.044	<0.032	<0.132	<0.064	<0.032	<0.066	<0.044	<0.026	<0.230
			1009	spike	<.044	2.24	<.132	<.064	E.072	E.028	1.45	<.026	<.230
2	410956091135601	06-24-98	0929	regular	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
3	411622091193401	06-24-98	1214	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
4	412136091270501	06-25-98	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
5	412711091122401	06-15-98	0944	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0949	replicate	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
6	412748091285101	06-16-98	1129	regular	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
7	412808091345001	06-17-98	0914	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
8	412831091205601	06-16-98	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
9	412916091405101	06-17-98	1124	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
10	413338091045601	07-16-98	0929	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
11	413438091341201	06-10-98	0945	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
12	413523092050501	06-22-98	0939	blank	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			0959	regular	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
13	413634091484301	06-18-98	0914	do.	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
14	413705091392701	06-11-98	1000	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
15	414036090460001	06-23-98	1214	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
16	414430093220001	07-14-98	1229	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
17	414914092024001	07-15-98	1044	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
18	414944090470901	07-09-98	1138	blank	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			1139	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
			1159	regular	<.088	<.064	<.264	<.128	<.064	<.132	<.088	<.052	<.460
19	415053093282401	07-14-98	0859	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
20	415057093304801	07-13-98	1114	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,1,2,- Tetra- chloro- ethane (77562)	1,1,1- Trichloro- ethane (34506)	1,1,2,2- Tetra- chloro- ethane (34516)	1,1,2-Tri- chloro- ethane (34511)	1,1,2- Trichloro- trifluoro- ethane (77652)	1,1- Dichloro- ethane (34496)	1,1- Dichloro- ethylene (34501)	1,1- Dichloro- propene (77168)	1,2,3,4- Tetra- methyl- benzene (49999)
21	415139092190801	06-30-98	0909	regular	<0.044	<0.032	<0.132	<0.064	<0.032	<0.066	<0.044	<0.026	<0.230
			0914	replicate	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
22	415147092115301	06-30-98	1229	regular	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
23	415637091581001	06-30-98	0914	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
24	415859090563901	06-23-98	1214	do.	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
25	421657092081801	07-06-98	1124	do.	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920
26	422555092135201	07-01-98	1014	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
27	423208091562101	07-08-98	1114	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
28	423409092283001	07-07-98	0844	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
29	423749092260801	07-07-98	1239	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
30	430255093083301	07-21-98	1329	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
31	430549092272301	07-21-98	0944	do.	<.044	<.032	<.132	<.064	<.032	<.066	<.044	<.026	<.230
32	434556093003501	07-20-98	1144	do.	<.176	<.128	<.528	<.256	<.128	<.264	<.176	<.104	<.920

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2,3,5- Tetra- methyl- benzene (50000)	1,2,3- Trichloro- benzene (77613)	1,2,3- Trichloro- propane (77443)	1,2,3- Trimethyl- benzene (77221)	1,2,4- Trichloro- benzene (34551)	1,2,4- Trimethyl- benzene (77222)	1,2,- Dibromo-3- chloro- propane (82625)	1,2- Dibromo- ethane (77651)	1,2- Dichloro- benzene (34536)
1	410513091430401	07-22-98	0959	regular	<0.240	<0.266	<0.162	<0.124	<0.188	<0.056	<0.214	<0.036	<0.048
			1009	spike	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
2	410956091135601	06-24-98	0929	regular	<.960	<1.06	<.648	<.496	<.752	<.224	<.856	<.144	<.192
3	411622091193401	06-24-98	1214	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
4	412136091270501	06-25-98	0859	do.	<.240	<.266	<.162	<.124	<.188	E.047	<.214	<.036	<.048
5	412711091122401	06-15-98	0944	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0949	replicate	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
6	412748091285101	06-16-98	1129	regular	<.960	<1.06	<.280	<.496	<.752	<.224	<.856	<.144	<.192
7	412808091345001	06-17-98	0914	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
8	412831091205601	06-16-98	0859	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
9	412916091405101	06-17-98	1124	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
10	413338091045601	07-16-98	0929	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
11	413438091341201	06-10-98	0945	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
12	413523092050501	06-22-98	0939	blank	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
			0959	regular	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
13	413634091484301	06-18-98	0914	do.	<.960	<1.06	<.280	<.496	<.752	<.224	<.856	<.144	<.192
14	413705091392701	06-11-98	1000	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
15	414036090460001	06-23-98	1214	do.	<.240	<.266	<.070	<.124	<.188	<.056	<.214	<.036	<.048
16	414430093220001	07-14-98	1229	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
17	414914092024001	07-15-98	1044	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
18	414944090470901	07-09-98	1138	blank	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
			1139	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
			1159	regular	<.480	<.532	<.324	<.248	<.376	<.112	<1.00	<.072	<.096
19	415053093282401	07-14-98	0859	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
20	415057093304801	07-13-98	1114	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.500	<.036	<.048

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2,3,5- Tetra- methyl- benzene (50000)	1,2,3- Trichloro- benzene (77613)	1,2,3- Trichloro- propane (77443)	1,2,3- Trimethyl- benzene (77221)	1,2,4- Trichloro- benzene (34551)	1,2,4- Trimethyl- benzene (77222)	1,2,- Dibromo-3- chloro- propane (82625)	1,2- Dibromo- ethane (77651)	1,2- Dichloro- benzene (34536)
21	415139092190801	06-30-98	0909	regular	<0.240	<0.266	<0.162	<0.124	<0.188	<0.056	<0.214	<0.036	<0.048
			0914	replicate	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
22	415147092115301	06-30-98	1229	regular	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
23	415637091581001	06-30-98	0914	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
24	415859090563901	06-23-98	1214	do.	<.960	<1.06	<.280	<.496	<.752	<.224	<.856	<.144	<.192
25	421657092081801	07-06-98	1124	do.	<.960	<1.06	<.648	<.496	<.752	<.224	<.856	<.144	<.192
26	422555092135201	07-01-98	1014	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
27	423208091562101	07-08-98	1114	do.	<.240	<.266	<.162	<.124	<.188	E.064	<.500	<.036	<.048
28	423409092283001	07-07-98	0844	do.	<.240	<.266	<.162	<.124	<.188	E.054	<.214	<.036	<.048
29	423749092260801	07-07-98	1239	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
30	430255093083301	07-21-98	1329	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
31	430549092272301	07-21-98	0944	do.	<.240	<.266	<.162	<.124	<.188	<.056	<.214	<.036	<.048
32	434556093003501	07-20-98	1144	do.	<.960	<1.06	<.648	<.496	<.752	<.224	<.856	<.144	<.192



**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2- Dichloro- ethane (32103)	1,2-Dichloro- ethane-d4 (surrogate, % recovery) (99832)	1,2- Dichloro- propane (34541)	1,3,5-Tri- methyl- benzene (77226)	1,3- Dichloro- benzene (34566)	1,3- Dichloro- propane (77173)	1,4-Bromo- fluoro-benzene (surrogate, % recovery) (99834)	1,4- Dichloro- benzene (34571)
1	410513091430401	07-22-98	0959	regular	<0.134	99.0	<0.068	<0.044	<0.054	<0.116	74.0	<0.050
			1009	spike	2.21	97.0	<.068	<.044	<.054	<.116	84.0	1.57
2	410956091135601	06-24-98	0929	regular	<.536	113	<.272	<.176	<.216	<.464	94.0	<.200
3	411622091193401	06-24-98	1214	do.	<.134	114	<.068	<.044	<.054	<.116	94.0	<.050
4	412136091270501	06-25-98	0859	do.	<.134	102	<.068	<.044	<.054	<.116	80.0	<.050
5	412711091122401	06-15-98	0944	do.	<.134	112	<.068	<.044	<.054	<.116	72.0	<.050
			0949	replicate	<.134	115	<.068	<.044	<.054	<.116	73.0	<.050
6	412748091285101	06-16-98	1129	regular	<.536	110	<.272	<.176	<.216	<.464	71.0	<.200
7	412808091345001	06-17-98	0914	do.	<.134	110	<.068	<.044	<.054	<.116	69.0	<.050
8	412831091205601	06-16-98	0859	do.	<.134	112	<.068	<.044	<.054	<.116	70.0	<.050
9	412916091405101	06-17-98	1124	do.	<.134	114	<.068	<.044	<.054	<.116	72.0	<.050
10	413338091045601	07-16-98	0929	do.	<.134	79.0	<.068	<.044	<.054	<.116	82.0	<.050
11	413438091341201	06-10-98	0945	do.	<.134	115	<.068	<.044	<.054	<.116	81.0	<.050
12	413523092050501	06-22-98	0939	blank	<.134	117	<.068	<.044	<.054	<.116	85.0	<.050
			0959	regular	<.134	126	<.068	<.044	<.054	<.116	85.0	<.050
13	413634091484301	06-18-98	0914	do.	<.536	128	<.272	<.176	<.216	<.464	84.0	<.200
14	413705091392701	06-11-98	1000	do.	<.134	114	<.068	<.044	<.054	<.116	78.0	<.050
15	414036090460001	06-23-98	1214	do.	<.134	129	<.068	<.044	<.054	<.116	89.0	<.050
16	4144330093220001	07-14-98	1229	do.	<.134	91.0	<.068	<.044	<.054	<.116	94.0	<.050
17	414914092024001	07-15-98	1044	do.	<.134	86.0	<.068	<.044	<.054	<.116	77.0	<.050
18	414944090470901	07-09-98	1138	blank	<.134	96.0	<.068	<.044	<.054	<.116	88.0	<.050
			1139	do.	<.134	99.0	<.068	<.044	<.054	<.116	88.0	<.050
			1159	regular	<.268	97.0	<.136	<.088	<.108	<.232	85.0	<.100
19	415053093282401	07-14-98	0859	do.	<.134	90.0	<.068	<.044	<.054	<.116	96.0	<.050
20	415057093304801	07-13-98	1114	do.	<.134	102	<.068	<.044	<.054	<.116	85.0	<.050

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	1,2- Dichloro- ethane (32103)	1,2-Dichloro- ethane-d4 (surrogate, % recovery) (99832)	1,2- Dichloro- propane (34541)	1,3,5-Tri- methyl- benzene (77226)	1,3- Dichloro- benzene (34566)	1,3- Dichloro- propane (77173)	1,4-Bromo- fluoro-benzene (surrogate, % recovery) (99834)	1,4- Dichloro- benzene (34571)
21	415139092190801	06-30-98	0909	regular	<0.134	118	<0.068	<0.044	<0.054	<0.116	88.0	<0.050
			0914	replicate	<.134	121	<.068	<.044	<.054	<.116	91.0	<.050
22	415147092115301	06-30-98	1229	regular	<.134	122	<.068	<.044	<.054	<.116	90.0	<.050
23	415637091581001	06-30-98	0914	do.	<.134	120	<.068	<.044	<.054	<.116	91.0	<.050
24	415859090563901	06-23-98	1214	do.	<.536	125	<.272	<.176	<.216	<.464	85.0	<.200
25	421657092081801	07-06-98	1124	do.	<.536	96.0	<.272	<.176	<.216	<.464	82.0	<.200
26	422555092135201	07-01-98	1014	do.	<.134	96.0	<.068	<.044	<.054	<.116	84.0	<.050
27	423208091562101	07-08-98	1114	do.	<.134	105	<.068	<.044	<.054	<.116	86.0	<.050
28	423409092283001	07-07-98	0844	do.	<.134	99.0	<.068	<.044	<.054	<.116	82.0	<.050
29	423749092260801	07-07-98	1239	do.	<.134	99.0	<.068	<.044	<.054	<.116	84.0	<.050
30	430255093083301	07-21-98	1329	do.	<.134	99.0	<.068	<.044	<.054	<.116	82.0	<.050
31	430549092272301	07-21-98	0944	do.	<.134	100	<.068	<.044	<.054	<.116	82.0	<.050
32	434556093003501	07-20-98	1144	do.	<.536	96.0	<.272	<.176	<.216	<.464	80.0	<.200

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	2,2- Dichloro- propane (77170)	2-Butanone (81595)	2-Chloro- toluene (77275)	2-Hesane (77103)	3-Chloro- propene (78109)	4-Chloro- toluene (77277)	4-Isopropyl- 1-methyl- benzene (77356)	4-Methyl-2- pentanone (78133)
1	410513091430401	07-22-98	0959	regular	<0.078	<1.65	<0.042	<0.746	<0.196	<0.056	<0.110	<0.374
			1009	spike	<.078	6.25	<.042	<.746	<.196	<.056	<.110	<.374
2	410956091135601	06-24-98	0929	regular	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
3	411622091193401	06-24-98	1214	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
4	412136091270501	06-25-98	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
5	412711091122401	06-15-98	0944	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0949	replicate	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
6	412748091285101	06-16-98	1129	regular	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
7	412808091345001	06-17-98	0914	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
8	412831091205601	06-16-98	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
9	412916091405101	06-17-98	1124	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
10	413338091045601	07-16-98	0929	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
11	413438091341201	06-10-98	0945	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
12	413523092050501	06-22-98	0939	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			0959	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
13	413634091484301	06-18-98	0914	do.	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
14	413705091392701	06-11-98	1000	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
15	414036090460001	06-23-98	1214	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
16	414430093220001	07-14-98	1229	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
17	414914092024001	07-15-98	1044	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
18	414944090470901	07-09-98	1138	blank	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1139	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
			1159	regular	<.156	<3.30	<.084	<1.49	<.392	<.112	<.220	<.748
19	415053093282401	07-14-98	0859	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
20	415057093304801	07-13-98	1114	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	2,2- Dichloro- propane (77170)	2-Butanone (81595)	2-Chloro- toluene (77275)	2-Hexanone (77103)	3-Chloro- propene (78109)	4-Chloro- toluene (77277)	4-Isopropyl- 1-methyl- benzene (77356)	4-Methyl-2- pentanone (78133)
21	415139092190801	06-30-98	0909	regular	<0.078	<1.65	<0.042	<0.746	<0.196	<0.056	<0.110	<0.374
			0914	replicate	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
22	415147092115301	06-30-98	1229	regular	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
23	415637091581001	06-30-98	0914	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
24	415859090563901	06-23-98	1214	do.	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
25	421657092081801	07-06-98	1124	do.	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50
26	422555092135201	07-01-98	1014	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
27	423208091562101	07-08-98	1114	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
28	423409092283001	07-07-98	0844	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
29	423749092260801	07-07-98	1239	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
30	430255093083301	07-21-98	1329	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
31	430549092272301	07-21-98	0944	do.	<.078	<1.65	<.042	<.746	<.196	<.056	<.110	<.374
32	434556093003501	07-20-98	1144	do.	<.312	<6.60	<.168	<2.98	<.784	<.224	<.440	<1.50

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Acetone (81552)	Acrylonitrile (34215)	Benzene (34030)	Bromo- benzene (81555)	Bromo- chloro- methane (77297)	Bromo- dichloro- methane (32101)	Bromoethene (50002)
1	410513091430401	07-22-98	0959	regular	<4.90	<1.23	<0.100	<0.036	<0.044	7.00	<0.100
			1009	spike	<4.90	<1.23	.114	<.036	<.044	9.08	<.100
2	410956091135601	06-24-98	0929	regular	<19.6	<4.90	<.400	<.144	<.176	<.192	<.400
3	411622091193401	06-24-98	1214	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
4	412136091270501	06-25-98	0859	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
5	412711091122401	06-15-98	0944	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
			0949	replicate	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
6	412748091285101	06-16-98	1129	regular	<19.6	<4.90	<.128	<.144	<.176	<.192	<.400
7	412808091345001	06-17-98	0914	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
8	412831091205601	06-16-98	0859	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
9	412916091405101	06-17-98	1124	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
10	413338091045601	07-16-98	0929	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
11	413438091341201	06-10-98	0945	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
12	413523092050501	06-22-98	0939	blank	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
			0959	regular	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
13	413634091484301	06-18-98	0914	do.	<19.6	<4.90	<.128	<.144	<.176	<.192	<.400
14	413705091392701	06-11-98	1000	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
15	414036090460001	06-23-98	1214	do.	<4.90	<1.23	<.032	<.036	<.044	<.048	<.100
16	414430093220001	07-14-98	1229	do.	<6.93	<1.23	<.100	<.036	<.044	<.048	<.100
17	414914092024001	07-15-98	1044	do.	<6.14	<1.23	<.100	<.036	<.044	<.048	<.100
18	414944090470901	07-09-98	1138	blank	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
			1139	do.	E2.99	<1.23	<.100	<.036	<.044	<.048	<.100
			1159	regular	<9.81	<2.45	<.200	<.072	<.088	<.096	<.200
19	415053093282401	07-14-98	0859	do.	<6.70	<1.23	<.100	<.036	<.044	<.048	<.100
20	415057093304801	07-13-98	1114	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
21	415139092190801	06-30-98	0909	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
			0914	replicate	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Acetone (81552)	Acrylonitrile (34215)	Benzene (34030)	Bromo- benzene (81555)	Bromo- chloro- methane (77297)	Bromo- dichloro- methane (32101)	Bromoethene (50002)
22	415147092115301	06-30-98	1229	regular	<4.90	<1.23	<0.100	<0.036	<0.044	<0.048	<0.100
23	415637091581001	06-30-98	0914	do.	<4.90	<1.23	E.013	<.036	<.044	<.048	<.100
24	415859090563901	06-23-98	1214	do.	<19.6	<4.90	<.128	<.144	<.176	<.192	<.400
25	421657092081801	07-06-98	1124	do.	<19.6	<4.90	<.400	<.144	<.176	<.192	<.400
26	422555092135201	07-01-98	1014	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
27	423208091562101	07-08-98	1114	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
28	423409092283001	07-07-98	0844	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
29	423749092260801	07-07-98	1239	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
30	430255093083301	07-21-98	1329	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
31	430549092272301	07-21-98	0944	do.	<4.90	<1.23	<.100	<.036	<.044	<.048	<.100
32	434556093003501	07-20-98	1144	do.	<19.6	<4.90	<.400	<.144	<.176	<.192	<.400

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Bromoform (32104)	Bromo- methane (34413)	Butyl- benzene (77342)	Carbon disulfide (77041)	Chloro- benzene (34301)	Chloro- ethane (34311)	Chloroform (32106)	Chloro- methane (34418)
1	410513091430401	07-22-98	0959	regular	0.302	<0.148	<0.186	E0.017	<0.028	<0.120	16.8	E0.046
			1009	spike	2.13	E.077	<.186	E.017	<.028	<.120	15.4	E.049
2	410956091135601	06-24-98	0929	regular	<.416	<.592	<.744	E.170	<.112	<.480	<.208	<1.02
3	411622091193401	06-24-98	1214	do.	<.104	<.148	<.186	.263	<.028	<.120	<.052	<.254
4	412136091270501	06-25-98	0859	do.	<.104	<.148	<.186	.199	<.028	<.120	<.052	<.254
5	412711091122401	06-15-98	0944	do.	<.104	<.148	<.186	E.073	<.028	<.120	<.052	<.254
			0949	replicate	<.104	<.148	<.186	E.033	<.028	<.120	<.052	<.254
6	412748091285101	06-16-98	1129	regular	<.416	<.592	<.744	E.092	<.112	<.480	<.208	<1.02
7	412808091345001	06-17-98	0914	do.	<.104	<.148	<.186	E.041	<.028	<.120	<.052	<.254
8	412831091205601	06-16-98	0859	do.	<.104	<.148	<.186	E.027	<.028	<.120	<.052	<.254
9	412916091405101	06-17-98	1124	do.	<.104	<.148	<.186	.097	<.028	<.120	<.052	<.254
10	413338091045601	07-16-98	0929	do.	<.104	<.148	<.186	.395	<.028	<.120	<.052	<.254
11	413438091341201	06-10-98	0945	do.	<.104	<.148	<.186	E.034	<.028	<.120	<.052	<.254
12	413523092050501	06-22-98	0939	blank	<.104	<.148	<.186	E.017	<.028	<.120	<.052	<.254
			0959	regular	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
13	413634091484301	06-18-98	0914	do.	<.416	<.592	<.744	<.320	<.112	<.480	<.208	<1.02
14	413705091392701	06-11-98	1000	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
15	414036090460001	06-23-98	1214	do.	<.104	<.148	<.186	<.080	<.028	<.120	<.052	<.254
16	414430093220001	07-14-98	1229	do.	<.104	<.148	<.186	2.06	<.028	<.120	<.052	<.254
17	414914092024001	07-15-98	1044	do.	<.104	<.148	<.186	<.370	<.028	<.120	<.052	<.254
18	414944090470901	07-09-98	1138	blank	<.104	<.148	<.186	.142	<.028	<.120	<.052	<.254
			1139	do.	<.104	<.148	<.186	E.060	<.028	<.120	<.052	<.254
			1159	regular	<.208	<.296	<.372	2.78	<.056	<.240	<.104	<.508
19	415053093282401	07-14-98	0859	do.	<.104	<.148	<.186	<.370	<.028	<.120	<.052	<.254
20	415057093304801	07-13-98	1114	do.	<.104	<.148	<.186	.142	<.028	<.120	<.052	E.011
21	415139092190801	06-30-98	0909	do.	<.104	<.148	<.186	E.029	<.028	<.120	<.052	<.254
			0914	replicate	<.104	<.148	<.186	E.017	<.028	<.120	E.010	<.254

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Bromoform (32104)	Bromo- methane (34413)	Butyl- benzene (77342)	Carbon disulfide (77041)	Chloro- benzene (34301)	Chloro- ethane (34311)	Chloroform (32106)	Chloro- methane (34418)
22	415147092115301	06-30-98	1229	regular	<0.104	<0.148	<0.186	E0.013	<0.028	<0.120	E0.014	<0.254
23	415637091581001	06-30-98	0914	do.	<.104	<.148	<.186	.096	<.028	<.120	<.052	<.254
24	415859090563901	06-23-98	1214	do.	<.416	<.592	<.744	<.320	<.112	<.480	<.208	<1.02
25	421657092081801	07-06-98	1124	do.	<.416	<.592	<.744	<1.48	<.112	<.480	<.208	<1.02
26	422555092135201	07-01-98	1014	do.	<.104	<.148	<.186	<.370	<.028	<.120	E.012	<.254
27	423208091562101	07-08-98	1114	do.	<.104	<.148	<.186	.128	<.028	<.120	<.052	<.254
28	423409092283001	07-07-98	0844	do.	<.104	<.148	<.186	E.024	<.028	<.120	<.052	<.254
29	423749092260801	07-07-98	1239	do.	<.104	<.148	<.186	.121	<.028	<.120	<.052	<.254
30	430255093083301	07-21-98	1329	do.	<.104	<.148	<.186	.154	<.028	<.120	<.052	<.254
31	430549092272301	07-21-98	0944	do.	<.104	<.148	<.186	E.064	<.028	<.120	<.052	<.254
32	434556093003501	07-20-98	1144	do.	<.416	<.592	<.744	<1.48	<.112	<.480	<.208	<1.02



**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Dibromo-chloro-methane (32105)	Dibromo-methane (30217)	Dichloro-difluoro-methane (34668)	Dichloro-methane (34423)	Diethyl ether (81576)	Diisopropyl ether (81577)	Ethyl meth-acrylate (73570)	Ethyl tert-butyl ether (50004)	Ethyl-benzene (34371)
1	410513091430401	07-22-98	0959	regular	3.13	<0.050	<0.138	<0.382	<0.170	<0.098	<0.278	<0.054	<0.030
			1009	spike	5.03	<.050	<.138	E.310	<.170	<.098	<.278	<.054	1.16
2	410956091135601	06-24-98	0929	regular	<.728	<.200	<.552	<1.53	<.680	<.392	<1.11	<.216	<.120
3	411622091193401	06-24-98	1214	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
4	412136091270501	06-25-98	0859	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
5	412711091122401	06-15-98	0944	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
			0949	replicate	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
6	412748091285101	06-16-98	1129	regular	<.728	<.200	<.384	<1.53	<.680	<.392	<1.11	<.216	<.120
7	412808091345001	06-17-98	0914	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
8	412831091205601	06-16-98	0859	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
9	412916091405101	06-17-98	1124	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
10	413338091045601	07-16-98	0929	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
11	413438091341201	06-10-98	0945	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
12	413523092050501	06-22-98	0939	blank	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
			0959	regular	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
13	413634091484301	06-18-98	0914	do.	<.728	<.200	<.384	<1.53	<.680	<.392	<1.11	<.216	<.120
14	413705091392701	06-11-98	1000	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
15	414036090460001	06-23-98	1214	do.	<.182	<.050	<.096	<.382	<.170	<.098	<.278	<.054	<.030
16	414430093220001	07-14-98	1229	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
17	414914092024001	07-15-98	1044	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
18	414944090470901	07-09-98	1138	blank	<.182	<.050	E.730	<.382	<.170	<.098	<.278	<.054	<.030
			1139	do.	<.182	<.050	E.110	<.382	<.170	<.098	<.278	<.054	<.030
			1159	regular	<.364	<.100	<.276	<.764	<.340	<.196	<.556	<.108	<.060
19	415053093282401	07-14-98	0859	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
20	415057093304801	07-13-98	1114	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Dibromo-chloro-methane (32105)	Dibromo-methane (30217)	Dichloro-difluoro-methane (34668)	Dichloro-methane (34423)	Diethyl ether (81576)	Diisopropyl ether (81577)	Ethyl meth-acrylate (73570)	Ethyl tert-butyl ether (50004)	Ethyl-benzene (34371)
21	415139092190801	06-30-98	0909	regular	<0.182	<0.050	<0.138	<0.382	<0.170	<0.098	<0.278	<0.054	<0.030
			0914	replicate	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
22	415147092115301	06-30-98	1229	regular	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
23	415637091581001	06-30-98	0914	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
24	415859090563901	06-23-98	1214	do.	<.728	<.200	<.384	<1.53	<.680	<.392	<1.11	<.216	<.120
25	421657092081801	07-06-98	1124	do.	<.728	<.200	<.552	<1.53	<.680	<.392	<1.11	<.216	<.120
26	422555092135201	07-01-98	1014	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
27	423208091562101	07-08-98	1114	do.	<.182	<.050	E.110	<.382	<.170	<.098	<.278	<.054	<.030
28	423409092283001	07-07-98	0844	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
29	423749092260801	07-07-98	1239	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
30	430255093083301	07-21-98	1329	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
31	430549092272301	07-21-98	0944	do.	<.182	<.050	<.138	<.382	<.170	<.098	<.278	<.054	<.030
32	434556093003501	07-20-98	1144	do.	<.728	<.200	<.552	<1.53	<.680	<.392	<1.11	<.216	<.120

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Hexachloro- butadiene (39702)	Hexachloro- ethane (34396)	Isopropyl- benzene (77223)	Methyl acrylate (49991)	Methyl acryl- onitrile (81593)	Methyl iodide (77424)	Methyl meth- acrylate (81597)	Naphthalene (34696)
1	410513091430401	07-22-98	0959	regular	<0.142	<0.362	<0.032	<1.36	<0.570	<0.208	<0.350	<0.250
			1009	spike	<.142	<.362	<.032	<1.36	<.570	E.072	<.350	<.250
2	410956091135601	06-24-98	0929	regular	<.568	<1.45	<.128	<5.43	<2.28	<.832	<1.40	<1.00
3	411622091193401	06-24-98	1214	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
4	412136091270501	06-25-98	0859	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
5	412711091122401	06-15-98	0944	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
			0949	replicate	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
6	412748091285101	06-16-98	1129	regular	<.568	<1.45	<.128	<2.45	<2.28	<.304	<1.40	<1.00
7	412808091345001	06-17-98	0914	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
8	412831091205601	06-16-98	0859	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
9	412916091405101	06-17-98	1124	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
10	413338091045601	07-16-98	0929	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
11	413438091341201	06-10-98	0945	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
12	413523092050501	06-22-98	0939	blank	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
			0959	regular	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
13	413634091484301	06-18-98	0914	do.	<.568	<1.45	<.128	<2.45	<2.28	<.304	<1.40	<1.00
14	413705091392701	06-11-98	1000	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
15	414036090460001	06-23-98	1214	do.	<.142	<.362	<.032	<.612	<.570	<.076	<.350	<.250
16	414430093220001	07-14-98	1229	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
17	414914092024001	07-15-98	1044	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
18	414944090470901	07-09-98	1138	blank	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
			1139	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
			1159	regular	<.284	<.724	<.064	<2.71	<1.14	<.416	<.700	<.500
19	415053093282401	07-14-98	0859	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
20	415057093304801	07-13-98	1114	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
21	415139092190801	06-30-98	0909	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
			0914	replicate	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Hexachloro- butadiene (39702)	Hexachloro- ethane (34396)	Isopropyl- benzene (77223)	Methyl acrylate (49991)	Methyl acryl- onitrile (81593)	Methyl iodide (77424)	Methyl meth- acrylate (81597)	Naphthalene (34696)
22	415147092115301	06-30-98	1229	regular	<0.142	<0.362	<0.032	<1.36	<0.570	<0.208	<0.350	<0.250
23	415637091581001	06-30-98	0914	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
24	415859090563901	06-23-98	1214	do.	<.568	<1.45	<.128	<2.45	<2.28	<.304	<1.40	<1.00
25	421657092081801	07-06-98	1124	do.	<.568	<1.45	<.128	<5.43	<2.28	<.832	<1.40	<1.00
26	422555092135201	07-01-98	1014	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
27	423208091562101	07-08-98	1114	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
28	423409092283001	07-07-98	0844	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
29	423749092260801	07-07-98	1239	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
30	430255093083301	07-21-98	1329	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
31	430549092272301	07-21-98	0944	do.	<.142	<.362	<.032	<1.36	<.570	<.208	<.350	<.250
32	434556093003501	07-20-98	1144	do.	<.568	<1.45	<.128	<5.43	<2.28	<.832	<1.40	<1.00

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Styrene (77128)	Tetrachloro- ethylene (34475)	Tetrachloro- methane (32102)	Tetra- hydrofuran (81607)	Toluene (34010)	Toluene-d8 (surrogate, % recovery) (99833)	Trichloro- ethylene (39180)	Trichloro- fluoro- methane (34488)
1	410513091430401	07-22-98	0959	regular	<0.042	<0.102	<0.088	<8.79	<0.054	95.0	<0.038	<0.092
			1009	spike	<.042	1.88	2.23	<8.79	E.018	96.0	2.23	E.035
2	410956091135601	06-24-98	0929	regular	<.168	<.408	<.352	<35.2	E.059	101	<.152	<.368
3	411622091193401	06-24-98	1214	do.	<.042	<.102	<.088	<8.79	E.031	101	<.038	<.092
4	412136091270501	06-25-98	0859	do.	<.042	<.102	<.088	<8.79	E.064	97.0	<.038	<.092
5	412711091122401	06-15-98	0944	do.	<.042	<.038	<.088	<1.15	E.033	96.0	<.038	<.092
			0949	replicate	<.042	<.038	<.088	<1.15	E.032	98.0	<.038	<.092
6	412748091285101	06-16-98	1129	regular	<.168	<.152	<.352	<4.59	<.152	98.0	<.152	<.368
7	412808091345001	06-17-98	0914	do.	<.042	<.038	<.088	<1.15	E.016	95.0	<.038	<.092
8	412831091205601	06-16-98	0859	do.	<.042	<.038	<.088	<1.15	E.020	96.0	<.038	<.092
9	412916091405101	06-17-98	1124	do.	<.042	<.038	<.088	<1.15	E.015	98.0	<.038	<.092
10	413338091045601	07-16-98	0929	do.	<.042	<.102	<.088	<8.79	E.021	107	<.038	<.092
11	413438091341201	06-10-98	0945	do.	<.042	<.038	<.088	<1.15	E.024	99.0	<.038	<.092
12	413523092050501	06-22-98	0939	blank	<.042	<.038	<.088	<1.15	E.038	97.0	<.038	<.092
			0959	regular	<.042	<.038	<.088	<1.15	<.038	97.0	<.038	<.092
13	413634091484301	06-18-98	0914	do.	<.168	<.152	<.352	<4.59	<.152	95.0	<.152	<.368
14	413705091392701	06-11-98	1000	do.	<.042	<.038	<.088	<1.15	<.038	99.0	<.038	<.092
15	414036090460001	06-23-98	1214	do.	<.042	<.038	<.088	<1.15	E.021	98.0	<.038	<.092
16	414430093220001	07-14-98	1229	do.	<.042	<.102	<.088	<8.79	<.054	103	<.038	<.092
17	414914092024001	07-15-98	1044	do.	<.042	<.102	<.088	<8.79	<.054	100	<.038	<.092
18	414944090470901	07-09-98	1138	blank	<.042	<.102	<.088	<8.79	E.038	96.0	<.038	<.092
			1139	do.	<.042	<.102	<.088	<8.79	E.029	98.0	<.038	<.092
			1159	regular	<.084	<.204	<.176	<17.6	<.108	96.0	<.076	<.184
19	415053093282401	07-14-98	0859	do.	<.042	<.102	<.088	<8.79	<.054	104	<.038	<.092
20	415057093304801	07-13-98	1114	do.	<.042	<.102	<.088	<8.79	<.054	96.0	<.038	<.092
21	415139092190801	06-30-98	0909	do.	<.042	<.102	<.088	<8.79	E.045	98.0	<.038	<.092
			0914	replicate	<.042	<.102	<.088	<8.79	E.040	99.0	<.038	<.092
22	415147092115301	06-30-98	1229	regular	<.042	<.102	<.088	<8.79	.178	99.0	<.038	<.092

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Styrene (77128)	Tetrachloro- ethylene (34475)	Tetrachloro- methane (32102)	Tetra- hydrofuran (81607)	Toluene (34010)	Toluene-d8 (surrogate, % recovery) (99833)	Trichloro- ethylene (39180)	Trichloro- fluoro- methane (34488)
23	415637091581001	06-30-98	0914	regular	<0.042	<0.102	<0.088	<8.79	E0.060	99.0	<0.038	<0.092
24	415859090563901	06-23-98	1214	do.	<.168	<.152	<.352	<4.59	E.068	96.0	<.152	<.368
25	421657092081801	07-06-98	1124	do.	<.168	<.408	<.352	<35.2	<.216	99.0	<.152	<.368
26	422555092135201	07-01-98	1014	do.	<.042	<.102	<.088	<8.79	E.042	100	<.038	<.092
27	423208091562101	07-08-98	1114	do.	<.042	<.102	<.088	<8.79	E.020	97.0	<.038	<.092
28	423409092283001	07-07-98	0844	do.	<.042	<.102	<.088	<8.79	<.054	99.0	<.038	<.092
29	423749092260801	07-07-98	1239	do.	<.042	<.102	<.088	<8.79	<.054	99.0	<.038	<.092
30	430255093083301	07-21-98	1329	do.	<.042	<.102	<.088	<8.79	<.054	100	<.038	<.092
31	430549092272301	07-21-98	0944	do.	<.042	<.102	<.088	<8.79	<.054	98.0	<.038	<.092
32	434556093003501	07-20-98	1144	do.	<.168	<.408	<.352	<35.2	<.216	97.0	<.152	<.368

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Vinyl chloride (39175)	cis-1,2- Dichloro- ethylene (77093)	cis-1,3- Dichloro- propene (34704)	m- and p- Xylene (85795)	n-Propyl- benzene (77224)	o-Ethyl toluene (77220)	o-Xylene (77135)	sec-Butyl- benzene (77350)
1	410513091430401	07-22-98	0959	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			1009	spike	E.047	<.038	<.092	<.064	<.042	<.100	<.064	<.048
2	410956091135601	06-24-98	0929	regular	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
3	411622091193401	06-24-98	1214	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
4	412136091270501	06-25-98	0859	do.	<.112	<.038	<.092	E.029	<.042	<.100	<.064	<.048
5	412711091122401	06-15-98	0944	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0949	replicate	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
6	412748091285101	06-16-98	1129	regular	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
7	412808091345001	06-17-98	0914	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
8	412831091205601	06-16-98	0859	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
9	412916091405101	06-17-98	1124	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
10	413338091045601	07-16-98	0929	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
11	413438091341201	06-10-98	0945	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
12	413523092050501	06-22-98	0939	blank	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			0959	regular	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
13	413634091484301	06-18-98	0914	do.	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
14	413705091392701	06-11-98	1000	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
15	414036090460001	06-23-98	1214	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
16	414430093220001	07-14-98	1229	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
17	414914092024001	07-15-98	1044	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
18	414944090470901	07-09-98	1138	blank	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			1139	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
			1159	regular	<.224	<.076	<.184	<.128	<.084	<.200	<.128	<.096
19	415053093282401	07-14-98	0859	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
20	415057093304801	07-13-98	1114	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
21	415139092190801	06-30-98	0909	do.	<.112	<.038	<.092	E.018	<.042	<.100	<.064	<.048
			0914	replicate	<.112	<.038	<.092	E.016	<.042	<.100	<.064	<.048
22	415147092115301	06-30-98	1229	regular	<.112	<.038	<.092	E.013	<.042	<.100	<.064	<.048

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Vinyl chloride (39175)	cis-1,2- Dichloro- ethylene (77093)	cis-1,3- Dichloro- propene (34704)	m- and p- Xylene (85795)	n-Propyl- benzene (77224)	o-Ethyl toluene (77220)	o-Xylene (77135)	sec-Butyl- benzene (77350)
23	415637091581001	06-30-98	0914	regular	<0.112	<0.038	<0.092	E.016	<0.042	<0.100	<0.064	<0.048
24	415859090563901	06-23-98	1214	do.	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
25	421657092081801	07-06-98	1124	do.	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192
26	422555092135201	07-01-98	1014	do.	<.112	<.038	<.092	E.013	<.042	<.100	<.064	<.048
27	423208091562101	07-08-98	1114	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
28	423409092283001	07-07-98	0844	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
29	423749092260801	07-07-98	1239	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
30	430255093083301	07-21-98	1329	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
31	430549092272301	07-21-98	0944	do.	<.112	<.038	<.092	<.064	<.042	<.100	<.064	<.048
32	434556093003501	07-20-98	1144	do.	<.448	<.152	<.368	<.256	<.168	<.400	<.256	<.192



**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	tert-Butyl methyl ether (78032)	tert-Butyl- benzene (77353)	tert-Pentyl methyl ether (50005)	trans-1,2- Dichloro- ethylene (34546)	trans-1,3- Dichloro- propene (34699)	trans-1,4- Dichloro-2- butene (73547)
1	410513091430401	07-22-98	0959	regular	<0.166	<0.096	<0.112	<0.032	<0.134	<0.692
			1009	spike	2.03	<.096	<.112	E.029	<.134	<.692
2	410956091135601	06-24-98	0929	regular	<.664	<.384	<.448	<.128	<.536	<2.77
3	411622091193401	06-24-98	1214	do.	<.166	<.096	<.112	<.032	<.134	<.692
4	412136091270501	06-25-98	0859	do.	<.166	<.096	<.112	<.032	<.134	<.692
5	412711091122401	06-15-98	0944	do.	<.112	<.096	<.112	<.032	<.134	<.692
			0949	replicate	<.112	<.096	<.112	<.032	<.134	<.692
6	412748091285101	06-16-98	1129	regular	<.448	<.384	<.448	<.128	<.536	<2.77
7	412808091345001	06-17-98	0914	do.	<.112	<.096	<.112	<.032	<.134	<.692
8	412831091205601	06-16-98	0859	do.	<.112	<.096	<.112	<.032	<.134	<.692
9	412916091405101	06-17-98	1124	do.	<.112	<.096	<.112	<.032	<.134	<.692
10	413338091045601	07-16-98	0929	do.	<.166	<.096	<.112	<.032	<.134	<.692
11	413438091341201	06-10-98	0945	do.	<.112	<.096	<.112	<.032	<.134	<.692
12	413523092050501	06-22-98	0939	blank	<.112	<.096	<.112	<.032	<.134	<.692
			0959	regular	<.112	<.096	<.112	<.032	<.134	<.692
13	413634091484301	06-18-98	0914	do.	<.448	<.384	<.448	<.128	<.536	<2.77
14	413705091392701	06-11-98	1000	do.	<.112	<.096	<.112	<.032	<.134	<.692
15	414036090460001	06-23-98	1214	do.	<.112	<.096	<.112	<.032	<.134	<.692
16	414430093220001	07-14-98	1229	do.	<.166	<.096	<.112	<.032	<.134	<.692
17	414914092024001	07-15-98	1044	do.	<.166	<.096	<.112	<.032	<.134	<.692
18	414944090470901	07-09-98	1138	blank	<.166	<.096	<.112	<.032	<.134	<.692
			1139	do.	<.166	<.096	<.112	<.032	<.134	<.692
			1159	regular	<.332	<.192	<.224	<.064	<.268	<1.38
19	415053093282401	07-14-98	0859	do.	<.166	<.096	<.112	<.032	<.134	<.692
20	415057093304801	07-13-98	1114	do.	<.166	<.096	<.112	<.032	<.134	<.692
21	415139092190801	06-30-98	0909	do.	<.166	<.096	<.112	<.032	<.134	<.692
			0914	replicate	<.166	<.096	<.112	<.032	<.134	<.692

**Table 32.** Concentrations of volatile organic compounds in samples from alluvial study-unit survey wells, 1998—Continued

Map-index number (fig. 3)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	tert-Butyl methyl ether (78032)	tert-Butyl- benzene (77353)	tert-Pentyl methyl ether (50005)	trans-1,2- Dichloro- ethylene (34546)	trans-1,3- Dichloro- propene (34699)	trans-1,4- Dichloro-2- butene (73547)
22	415147092115301	06-30-98	1229	regular	<0.166	<0.096	<0.112	<0.032	<0.134	<0.692
23	415637091581001	06-30-98	0914	do.	<.166	<.096	<.112	<.032	<.134	<.692
24	415859090563901	06-23-98	1214	do.	<.448	<.384	<.448	<.128	<.536	<2.77
25	421657092081801	07-06-98	1124	do.	<.664	<.384	<.448	<.128	<.536	<2.77
26	422555092135201	07-01-98	1014	do.	<.166	<.096	<.112	<.032	<.134	<.692
27	423208091562101	07-08-98	1114	do.	<.166	<.096	<.112	<.032	<.134	<.692
28	423409092283001	07-07-98	0844	do.	<.166	<.096	<.112	<.032	<.134	<.692
29	423749092260801	07-07-98	1239	do.	<.166	<.096	<.112	<.032	<.134	<.692
30	430255093083301	07-21-98	1329	do.	<.166	<.096	<.112	<.032	<.134	<.692
31	430549092272301	07-21-98	0944	do.	<.166	<.096	<.112	<.032	<.134	<.692
32	434556093003501	07-20-98	1144	do.	<.664	<.384	<.448	<.128	<.536	<2.77

**Table 33.** Miscellaneous onsite determinations in samples from Iowa River alluvial aquifer wells, 1998

[NTU, nephelometric turbidity units;  $\mu\text{S}/\text{cm}$ , microsiemens per centimeter at 25 °C; °C, degrees Celsius; mg/L, milligrams per liter; %, percent; --, data not collected. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 4)	Well identification	Date (month-day-year)	Time (24-hour)	Turbidity (NTU) (00076)	Specific conductance ( $\mu\text{S}/\text{cm}$ ) (00095)	pH (standard units) (00400)	Water temperature (°C) (00010)	Oxygen, dissolved (mg/L) (00300)	Dissolved oxygen saturation (%) (00301)	Alkalinity (mg/L as $\text{CaCO}_3$ ) (39086)	Bicarbonate (mg/L as $\text{HCO}_3$ ) (00453)	Carbonate (mg/L as $\text{CO}_3$ ) (00452)
IRA 5	414752092053201	08-19-98	0930	11	436	7.1	11.0	0.2	1	145	177	0
	414752092053202	08-19-98	1030	8.0	686	6.6	13.5	.7	7	214	261	0
	414752092053203	08-19-98	1130	22	939	6.7	15.5	.7	7	306	373	0
IRC 4	414816092053401	08-03-98	1400	0	431	7.0	11.5	.1	1	184	225	0
	414816092053402	08-03-98	1300	2.0	464	6.4	13.0	.1	1	194	234	0
	414816092053403	08-03-98	1100	0	486	6.5	14.5	.1	1	223	272	0
IRA 26	414818092055401	08-20-98	0930	0	655	7.0	11.5	.2	2	226	276	0
	414818092055402	08-20-98	1030	7.0	396	6.8	13.0	.9	9	154	184	0
	414818092055403	08-20-98	1100	0	374	6.7	13.5	.9	9	138	168	0
IRC 1	414900092073801	08-13-98	1215	12	468	7.2	12.5	.2	3	176	215	0
IRA 3	414907092083001	08-06-98	1130	--	492	7.3	11.0	.1	1	210	256	0
	414907092083003	08-06-98	1030	0	468	7.0	12.5	.2	2	204	249	0
	414907092083004	08-06-98	0900	2.0	631	6.7	15.5	.1	1	192	234	0
IRA 6	414930092093801	08-13-98	0900	11	484	7.2	11.5	.2	2	168	205	0
IRA 21	415020092094001	08-04-98	1300	2.0	527	7.3	11.0	5.1	47	186	227	0
	415020092094002	08-05-98	1050	--	750	6.7	11.0	.1	1	210	256	0
	415020092094003	08-05-98	0930	15	517	6.4	13.5	.2	2	236	288	0
	415020092094004	08-04-98	1500	120	409	6.3	14.0	.4	4	164	200	0
	415020092094005	08-04-98	1400	27	346	6.2	16.5	.2	2	147	179	0
	415020092094010	08-05-98	1300	6.0	700	7.0	10.5	.6	6	317	387	0
IRA 17	415039092164001	08-17-98	1330	9.0	678	6.9	11.5	3.7	35	341	416	0
IRA 19	415045092145601	08-21-98	0930	7.0	596	7.2	12.5	7.6	73	191	233	0
IRC 2	415052092120301	08-11-98	0900	9.0	633	7.0	10.5	.2	1	241	294	0
IRC 3	415105092132501	08-11-98	1200	3.0	669	7.1	11.0	.1	1	200	244	0
	415105092135201	08-18-98	0930	9.0	421	7.5	11.5	.2	1	130	159	0
IRA 16	415211092164101	08-17-98	0930	7.0	1,560	6.9	12.0	.1	1	208	254	0
	415211092164102	08-17-98	1130	7.0	903	7.0	13.5	.1	1	186	227	0

**Table 34.** Nutrient and dissolved organic carbon concentrations in samples from Iowa River alluvial aquifer wells, 1998  
 [mg/L, milligrams per liter; <, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 4)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L) (00608)	Nitrogen, nitrite, dissolved (mg/L) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L) (00623)	Nitrite plus nitrate, dissolved (mg/L) (00631)	Phosphorus, total (mg/L) (00666)	Orthophos- phorus, total, as P (mg/L) (00671)	Dissolved organic carbon (mg/L) (00681)
IRA 5	414752092053201	08-19-98	0930	regular	0.24	<0.01	0.28	<0.05	0.03	0.03	0.9
	414752092053202	08-19-98	1030	do.	.03	<.01	.13	3.5	.12	.12	1.7
	414752092053203	08-19-98	1130	do.	.04	<.01	.13	.52	.19	.19	1.9
IRC 4	414816092053401	08-03-98	1400	do.	.28	<.01	.34	<.05	.08	.05	1.9
	414816092053402	08-03-98	1300	do.	.03	.09	.13	1.5	.03	.06	2.2
	414816092053403	08-03-98	1100	do.	.03	<.01	.15	<.05	.02	.05	3.2
IRA 26	414818092055401	08-20-98	0930	do.	.11	<.01	<.10	<.05	<.01	.02	.8
	414818092055402	08-20-98	1030	do.	.09	<.01	.11	<.05	<.01	.01	1.0
	414818092055403	08-20-98	1100	do.	.09	<.01	.11	.05	.01	.02	1.0
IRC 1	414900092073801	08-13-98	1215	do.	.10	<.01	<.10	<.05	.02	.04	.8
IRA 3	414907092083001	08-06-98	1130	do.	.10	<.01	<.10	<.05	.01	.13	.8
	414907092083003	08-06-98	1030	do.	.04	<.01	<.10	<.05	<.01	.01	1.0
	414907092083004	08-06-98	0900	do.	.18	<.01	.35	.65	.18	.19	2.5
IRA 6	414930092093801	08-13-98	0900	do.	.23	.01	.23	<.05	.04	.04	.6
IRA 21	415020092094001	08-04-98	1300	do.	.04	<.01	<.10	12	.09	.12	.7
	415020092094002	08-05-98	1050	do.	.05	.03	.15	13	.11	.09	1.7
	415020092094003	08-05-98	0930	do.	.04	.01	.15	2.6	.14	.16	2.0
	415020092094004	08-04-98	1500	do.	<.02	.02	.14	1.5	.16	.15	2.7
	415020092094005	08-04-98	1400	do.	.03	.01	.22	1.0	.15	.16	2.3
	415020092094010	08-05-98	1300	do.	<.02	.02	<.10	2.4	.02	.02	.8
IRA 17	415039092164001	08-17-98	1330	do.	.03	<.01	.10	5.0	.07	.08	.9
IRA 19	415045092145601	08-21-98	0930	do.	.04	.01	<.10	20.0	.18	.17	.4
IRC 2	415052092120301	08-11-98	0840	blank	.07	<.01	<.10	<.05	<.01	<.01	.3
	415052092120301	08-11-98	0900	regular	.09	<.01	.19	<.05	.02	.06	1.3
IRC 3	415105092132501	08-11-98	1200	do.	.55	<.01	.64	<.05	.18	.35	1.9

**Table 34.** Nutrient and dissolved organic carbon concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Nitrogen, ammonia, dissolved (mg/L) (00608)	Nitrogen, nitrite, dissolved (mg/L) (00613)	Nitrogen, ammonia plus organic, dissolved (mg/L) (00623)	Nitrite plus nitrate, dissolved (mg/L) (00631)	Phosphorus, total (mg/L) (00666)	Orthophos- phorus, total, as P (mg/L) (00671)	Dissolved organic carbon (mg/L) (00681)
IRC 4	415105092135201	08-18-98	0930	regular	0.02	0.01	<0.10	0.32	0.02	0.03	0.7
	415105092135201	08-18-98	0935	replicate	.03	.01	<.10	.22	.02	.04	.7
IRA 16	415211092164101	08-17-98	0930	regular	.22	<.01	.26	<.05	.13	.09	1.0
	415211092164102	08-17-98	1130	do.	.08	<.01	.12	<.05	.15	.15	.9

**Table 35.** Major ion concentrations in samples from Iowa River alluvial aquifer wells, 1998

[mg/L, milligrams per liter; µg/L, micrograms per liter; &lt;, less than detection limit indicated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 4)	Well identification	Date (month-day- year)	Time (24- hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Mag- nesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (µg/L as Fe) (01046)	Man- ganese (µg/L as Mn) (01056)
IRA 5	414752092053201	08-19-98	0930	regular	55	14	9.5	0.49	9.0	57	0.13	22	0.190	6,200	384
	414752092053202	08-19-98	1030	do.	110	21	10	3.4	44	66	.12	9.7	.040	<10	<4.0
	414752092053203	08-19-98	1130	do.	140	16	26	5.4	71	71	.12	8.8	.046	<10	38
IRC 4	414816092053401	08-03-98	1400	do.	62	17	10	1.3	17	40	.16	22	.074	1,400	249
	414816092053402	08-03-98	1300	do.	70	20	5.2	1.8	8.4	58	.27	13	.019	<10	<4.0
	414816092053403	08-03-98	1100	do.	68	17	3.2	.51	3.4	31	.33	12	.023	<10	36
IRA 26	414818092055401	08-20-98	0930	do.	86	27	7.7	1.5	11	83	.15	17	.170	4,600	743
	414818092055402	08-20-98	1030	do.	49	16	5.3	.85	8.6	29	.15	13	.047	3,500	721
	414818092055403	08-20-98	1100	do.	45	16	5.3	.74	8.7	29	.14	12	.045	1,300	441
IRC 1	414900092073801	08-13-98	1215	do.	64	18	5.9	.91	6.1	52	.23	20	.069	1,600	398
IRA 3	414907092083001	08-06-98	1130	do.	68	22	7.7	.96	5.9	48	.23	21	.076	1,000	219
	414907092083003	08-06-98	1030	do.	65	20	6.4	1.1	8.2	38	.15	17	.051	1,600	1,070
	414907092083004	08-06-98	0900	do.	94	16	4.0	3.0	4.0	100	.24	8.8	.039	120	950
IRA 6	414930092093801	08-13-98	0840	blank	.11	0	<.10	<.10	<.10	<.10	<.10	<.10	<.010	<10	<4.0
	414930092093801	08-13-98	0900	regular	62	18	7.8	.58	10	69	.24	20	.077	1,400	417
IRA 21	415020092094001	08-04-98	1300	do.	68	24	3.5	.83	15	15	.18	22	.069	<10	<4.0
	415020092094002	08-05-98	1050	do.	92	32	4.8	3.3	42	66	.15	16	.036	<10	1,080
	415020092094003	08-05-98	0930	do.	76	20	4.6	4.0	12	33	.12	16	.044	<10	96
	415020092094004	08-04-98	1500	do.	55	14	5.3	4.8	9.5	27	.15	16	.033	<10	134
	415020092094005	08-04-98	1400	do.	46	13	5.8	5.6	9.7	26	<.10	17	.041	<10	46
	415020092094010	08-05-98	1300	do.	91	35	9.1	1.3	9.2	52	.15	18	.110	940	12
IRA 17	415039092164001	08-17-98	1330	do.	96	35	10	1.9	13	26	.22	22	.070	<10	<4.0
IRA 19	415045092145601	08-21-98	0930	do.	71	25	10	1.1	17	27	.19	22	.057	<10	<4.0
IRC 2	415052092120301	08-11-98	0900	do.	86	24	9.6	.96	10	100	.23	17	.051	960	1,030
IRC 3	415105092132501	08-11-98	1200	do.	80	29	8.9	2.4	11	130	1.0	22	.037	2,700	234

**Table 35.** Major ion concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month-day- year)	Time (24- hour)	Type of sample	Calcium (mg/L as Ca) (00915)	Mag- nesium (mg/L as Mg) (00925)	Sodium (mg/L as Na) (00930)	Potas- sium (mg/L as K) (00935)	Chloride (mg/L as Cl) (00940)	Sulfate (mg/L as SO <sub>4</sub> ) (00945)	Fluoride (mg/L as F) (00950)	Silica (mg/L as SiO <sub>2</sub> ) (00955)	Bromide (mg/L as Br) (71870)	Iron (μg/L as Fe) (01046)	Man- ganese (μg/L as Mn) (01056)
IRC 4	415105092135201	08-18-98	0930	regular	49	20	7.4	1.2	9.1	62	0.24	10	0.078	<10	478
	415105092135201	08-18-98	0935	replicate	49	20	7.4	1.1	9.1	63	.25	10	.078	<10	482
IRA 16	415211092164101	08-17-98	0930	regular	240	82	26	2.1	16	670	.32	24	.086	5,000	737
	415211092164102	08-17-98	1130	do.	120	43	19	1.7	17	270	.59	18	.082	<10	706

**Table 36.** Selected dissolved pesticide concentrations in samples from Iowa River alluvial aquifer wells, 1998

[All concentrations are in micrograms per liter; &lt;, less than detection limit indicated; E, estimated. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 4)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	2, 6- diethyl- aniline (82660)	Aceto- chlor (49260)	Alachlor (46342)	Atrazine (39632)	Azinphos- methyl (82686)	Ben- fluralin (82673)	Butylate (04028)	Carbaryl (82680)	Carbo- furan (82674)	Chlor- pyrifos (38933)
IRA 5	414752092053201	08-19-98	0930	regular	E0.003	<0.002	<0.002	<0.001	<0.001	<0.002	<0.002	<0.003	<0.003	<0.004
	414752092053202	08-19-98	1030	do.	<.003	<.002	<.002	.040	<.001	<.002	<.002	<.003	<.003	<.004
	414752092053203	08-19-98	1130	do.	<.003	<.002	<.002	.036	<.001	<.002	<.002	<.003	<.003	<.004
IRC 4	414816092053401	08-03-98	1400	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	414816092053402	08-03-98	1300	do.	<.003	<.002	<.002	.055	<.001	<.002	<.002	<.003	<.003	<.004
	414816092053403	08-03-98	1100	do.	<.003	<.002	<.002	.042	<.001	<.002	<.002	<.003	<.003	<.004
IRA 26	414818092055401	08-20-98	0930	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	414818092055402	08-20-98	1030	do.	<.003	<.002	<.002	.005	<.001	<.002	<.002	<.003	<.003	<.004
	414818092055403	08-20-98	1100	do.	<.003	<.002	<.002	.005	<.001	<.002	<.002	<.003	<.003	<.004
IRC 1	414900092073801	08-13-98	1215	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
IRA 3	414907092083001	08-06-98	1130	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	414907092083003	08-06-98	1030	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	414907092083004	08-06-98	0900	do.	<.003	<.002	<.002	.169	<.001	<.002	<.002	<.003	<.003	<.004
IRA 6	414930092093801	08-13-98	0900	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
IRA 21	415020092094001	08-04-98	1300	do.	<.003	<.002	<.002	.288	<.001	<.002	<.002	<.003	<.003	<.004
	415020092094002	08-05-98	1050	do.	<.003	<.002	<.002	.020	<.001	<.002	<.002	<.003	<.003	<.004
	415020092094003	08-05-98	0930	do.	<.003	<.002	<.002	.044	<.001	<.002	<.002	<.003	<.003	<.004
	415020092094004	08-04-98	1500	do.	<.003	<.002	<.002	.076	<.001	<.002	<.002	<.003	<.003	<.004
	415020092094005	08-04-98	1400	do.	<.003	<.002	<.002	.087	<.001	<.002	<.002	<.003	<.003	<.004
	415020092094010	08-05-98	1300	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	415039092164001	08-17-98	1330	do.	<.003	<.002	<.002	.044	<.001	<.002	<.002	<.003	<.003	<.004
IRA 19	415045092145601	08-21-98	0930	do.	<.003	<.002	<.002	.063	<.001	<.002	<.002	<.003	<.003	<.004
IRC 2	415052092120301	08-11-98	0840	blank	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	415052092120301	08-11-98	0900	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
IRC 3	415105092132501	08-11-98	1200	do.	E.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
IRC 4	415105092135201	08-18-98	0930	do.	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	415105092135201	08-18-98	0935	replicate	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
IRA 16	415211092164101	08-17-98	0930	regular	<.003	<.002	<.002	<.001	<.001	<.002	<.002	<.003	<.003	<.004
	415211092164102	08-17-98	1130	do.	<.003	<.002	<.002	.006	<.001	<.002	<.002	<.003	<.003	<.004



**Table 36.** Selected dissolved pesticide concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month-day- year)	Time (24-hour)	Type of sample	Cyan- azine (04041)	DCPA (82682)	Deethyl- atrazine (04040)	Diazinon (39572)	Dieldrin (39381)	Disul- foton (82677)	EPTC (82668)	Ethal- fluralin (82663)	Ethopro- phos (82672)	Fonofos (04095)
IRA 5	414752092053201	08-19-98	0930	regular	<0.004	<0.002	<0.002	<0.002	<0.001	<0.017	<0.002	<0.004	<0.003	<0.003
	414752092053202	08-19-98	1030	do.	<.004	<.002	E.051	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414752092053203	08-19-98	1130	do.	.012	<.002	E.048	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRC 4	414816092053401	08-03-98	1400	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414816092053402	08-03-98	1300	do.	<.004	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414816092053403	08-03-98	1100	do.	<.004	<.002	E.021	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 26	414818092055401	08-20-98	0930	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414818092055402	08-20-98	1030	do.	<.004	<.002	E.003	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414818092055403	08-20-98	1100	do.	<.004	<.002	E.003	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRC 1	414900092073801	08-13-98	1215	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 3	414907092083001	08-06-98	1130	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414907092083003	08-06-98	1030	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	414907092083004	08-06-98	0900	do.	<.004	<.002	E.073	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 6	414930092093801	08-13-98	0900	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 21	415020092094001	08-04-98	1300	do.	<.004	<.002	E.339	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415020092094002	08-05-98	1050	do.	<.004	<.002	E.015	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415020092094003	08-05-98	0930	do.	<.004	<.002	E.022	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415020092094004	08-04-98	1500	do.	<.004	<.002	E.028	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415020092094005	08-04-98	1400	do.	<.004	<.002	E.032	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415020092094010	08-05-98	1300	do.	<.004	<.002	E.008	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 17	415039092164001	08-17-98	1330	do.	<.004	<.002	E.030	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 19	415045092145601	08-21-98	0930	do.	<.004	<.002	E.193	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRC 2	415052092120301	08-11-98	0840	blank	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415052092120301	08-11-98	0900	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRC 3	415105092132501	08-11-98	1200	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRC 4	415105092135201	08-18-98	0930	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415105092135201	08-18-98	0935	replicate	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
IRA 16	415211092164101	08-17-98	0930	regular	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003
	415211092164102	08-17-98	1130	do.	<.004	<.002	<.002	<.002	<.001	<.017	<.002	<.004	<.003	<.003

**Table 36.** Selected dissolved pesticide concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month-day-year)	Time (24-hour)	Type of sample	Lindane (39341)	Linuron (82666)	Mala-thion (39532)	Metol-achlor (39415)	Metri-buzin (82630)	Molinate (82671)	Naprop-amide (82684)	Parathion (39542)	Para-thion-methyl (82667)	Pebulate (82669)
IRA 5	414752092053201	08-19-98	0930	regular	<0.004	<0.002	<0.005	<0.002	<0.004	<0.004	<0.003	<0.004	<0.006	<0.004
	414752092053202	08-19-98	1030	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414752092053203	08-19-98	1130	do.	<.004	<.002	<.005	.005	<.004	<.004	<.003	<.004	<.006	<.004
IRC 4	414816092053401	08-03-98	1400	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414816092053402	08-03-98	1300	do.	<.004	<.002	<.005	.007	<.004	<.004	<.003	<.004	<.006	<.004
	414816092053403	08-03-98	1100	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 26	414818092055401	08-20-98	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414818092055402	08-20-98	1030	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414818092055403	08-20-98	1100	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRC 1	414900092073801	08-13-98	1215	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 3	414907092083001	08-06-98	1130	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414907092083003	08-06-98	1030	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	414907092083004	08-06-98	0900	do.	<.004	<.002	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004
IRA 6	414930092093801	08-13-98	0900	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 21	415020092094001	08-04-98	1300	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	415020092094002	08-05-98	1050	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	415020092094003	08-05-98	0930	do.	<.004	<.002	<.005	.010	<.004	<.004	<.003	<.004	<.006	<.004
	415020092094004	08-04-98	1500	do.	<.004	<.002	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004
	415020092094005	08-04-98	1400	do.	<.004	<.002	<.005	.011	<.004	<.004	<.003	<.004	<.006	<.004
	415020092094010	08-05-98	1300	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 17	415039092164001	08-17-98	1330	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 19	415045092145601	08-21-98	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRC 2	415052092120301	08-11-98	0840	blank	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	415052092120301	08-11-98	0900	regular	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRC 3	415105092132501	08-11-98	1200	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRC 4	415105092135201	08-18-98	0930	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	415105092135201	08-18-98	0935	replicate	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
IRA 16	415211092164101	08-17-98	0930	regular	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004
	415211092164102	08-17-98	1130	do.	<.004	<.002	<.005	<.002	<.004	<.004	<.003	<.004	<.006	<.004

**Table 36.** Selected dissolved pesticide concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Pendi- methalin (82682)	Phorate (82664)	Prometon (04037)	Prop- achlor (04024)	Propanil (82679)	Prop- argite (82685)	Propyz- amide (82676)	Simazine (04035)	Tebu- thiuron (82670)	Terbacil (82665)
IRA 5	414752092053201	08-19-98	0930	regular	<0.004	<0.002	<0.018	<0.007	<0.004	<0.013	<0.003	<0.005	<0.010	<0.007
	414752092053202	08-19-98	1030	do.	<.004	<.002	E.003	<.007	<.004	<.013	<.003	E.003	<.010	<.007
	414752092053203	08-19-98	1130	do.	<.004	<.002	E.005	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRC 4	414816092053401	08-03-98	1400	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414816092053402	08-03-98	1300	do.	<.004	<.002	E.008	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414816092053403	08-03-98	1100	do.	<.004	<.002	E.012	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 26	414818092055401	08-20-98	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414818092055402	08-20-98	1030	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414818092055403	08-20-98	1100	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRC 1	414900092073801	08-13-98	1215	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 3	414907092083001	08-06-98	1130	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414907092083003	08-06-98	1030	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	414907092083004	08-06-98	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 6	414930092093801	08-13-98	0900	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 21	415020092094001	08-04-98	1300	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415020092094002	08-05-98	1050	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415020092094003	08-05-98	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415020092094004	08-04-98	1500	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415020092094005	08-04-98	1400	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415020092094010	08-05-98	1300	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 17	415039092164001	08-17-98	1330	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 19	415045092145601	08-21-98	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRC 2	415052092120301	08-11-98	0840	blank	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415052092120301	08-11-98	0900	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRC 3	415105092132501	08-11-98	1200	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRC 4	415105092135201	08-18-98	0930	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415105092135201	08-18-98	0935	replicate	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
IRA 16	415211092164101	08-17-98	0930	regular	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007
	415211092164102	08-17-98	1130	do.	<.004	<.002	<.018	<.007	<.004	<.013	<.003	<.005	<.010	<.007

**Table 36.** Selected dissolved pesticide concentrations in samples from Iowa River alluvial aquifer wells, 1998—Continued

Map-index number (fig. 4)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Terbufos (82675)	Thiobencarb (82681)	Tri- allate (82678)	Trifluralin (82661)	alpha-HCH (34253)	cis-Per- methrin (82687)	p,p'-DDE (34653)
IRA 5	414752092053201	08-19-98	0930	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414752092053202	08-19-98	1030	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414752092053203	08-19-98	1130	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRC 4	414816092053401	08-03-98	1400	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414816092053402	08-03-98	1300	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414816092053403	08-03-98	1100	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 26	414818092055401	08-20-98	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414818092055402	08-20-98	1030	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414818092055403	08-20-98	1100	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRC 1	414900092073801	08-13-98	1215	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 3	414907092083001	08-06-98	1130	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414907092083003	08-06-98	1030	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	414907092083004	08-06-98	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 6	414930092093801	08-13-98	0900	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 21	415020092094001	08-04-98	1300	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415020092094002	08-05-98	1050	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415020092094003	08-05-98	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415020092094004	08-04-98	1500	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415020092094005	08-04-98	1400	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415020092094010	08-05-98	1300	do.	<.013	<.002	<.001	<.002	<.002	<.005	E.003
IRA 17	415039092164001	08-17-98	1330	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 19	415045092145601	08-21-98	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRC 2	415052092120301	08-11-98	0840	blank	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415052092120301	08-11-98	0900	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRC 3	415105092132501	08-11-98	1200	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRC 4	415105092135201	08-18-98	0930	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415105092135201	08-18-98	0935	replicate	<.013	<.002	<.001	<.002	<.002	<.005	<.006
IRA 16	415211092164101	08-17-98	0930	regular	<.013	<.002	<.001	<.002	<.002	<.005	<.006
	415211092164102	08-17-98	1130	do.	<.013	<.002	<.001	<.002	<.002	<.005	<.006

**Table 37.** Concentrations of selected dissolved pesticide surrogates in samples from Iowa River alluvial aquifer wells, 1998

[%, percent. Numbers in parentheses () are U.S. Geological Survey Water Data Storage and Retrieval System parameter codes]

Map-index number (fig. 4)	Well identification	Date (month- day-year)	Time (24-hour)	Type of sample	Diazinon, surrogate (% recovery) (91063)	Terbuthylazine, surrogate (% recovery) (91064)	alpha-HCH-d6, surrogate (% recovery) (91065)
IRA 5	414752092053201	08-19-98	0930	regular	85.0	108	78.2
	414752092053202	08-19-98	1030	do.	86.5	114	93.4
	414752092053203	08-19-98	1130	do.	86.7	107	90.0
IRC 4	414816092053401	08-03-98	1400	do.	93.7	103	88.3
	414816092053402	08-03-98	1300	do.	102	103	90.2
	414816092053403	08-03-98	1100	do.	97.4	110	93.1
IRA 26	414818092055401	08-20-98	0930	do.	85.2	109	83.9
	414818092055402	08-20-98	1030	do.	88.5	115	77.7
	414818092055403	08-20-98	1100	do.	88.0	111	78.2
IRC 1	414900092073801	08-13-98	1215	do.	105	110	87.2
IRA 3	414907092083001	08-06-98	1130	do.	102	127	87.6
	414907092083003	08-06-98	1030	do.	100	115	93.0
	414907092083004	08-06-98	0900	do.	117	127	101
IRA 6	414930092093801	08-13-98	0900	do.	107	118	92.2
IRA 21	415020092094001	08-04-98	1300	do.	99.8	119	98.8
	415020092094002	08-05-98	1050	do.	97.8	102	84.2
	415020092094003	08-05-98	0930	do.	84.9	97.2	93.1
	415020092094004	08-04-98	1500	do.	98.4	113	92.8
	415020092094005	08-04-98	1400	do.	87.8	105	98.4
	415020092094010	08-05-98	1300	do.	98.3	108	90.2
	415039092164001	08-17-98	1330	do.	94.6	89.6	85.7
IRA 19	415045092145601	08-21-98	0930	do.	68.8	95.5	90.4
IRC 2	415052092120301	08-11-98	0840	blank	91.8	108	100
	415052092120301	08-11-98	0900	regular	87.3	103	89.1
IRC 3	415105092132501	08-11-98	1200	do.	91.3	114	90.2
IRC 4	415105092135201	08-18-98	0930	do.	82.0	87.6	89.3
	415105092135201	08-18-98	0935	replicate	89.0	87.3	98.5
IRA 16	415211092164101	08-17-98	0930	regular	98.0	95.4	86.8
	415211092164102	08-17-98	1130	do.	96.0	96.8	92.7